Caldasia 24(1) 2002: 157-189

NEW AND NOTEWORTHY BIRD RECORDS FROM THE EAST SLOPE OF THE ANDES OF COLOMBIA

Nuevos y significativos registros de aves de la vertiente oriental de los Andes colombianos

PAUL G.W. SALAMAN
Edward Grey Institute of Field Ornithology, Department of Zoology, South Parks Road, Oxford OX1 3PS, U.K. salaman@proaxis.com

F. GARY STILES
Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Apartado 7495, Bogotá, Colombia. fstiles@ciencias.unal.edu.co

CLARA ISABEL BOHÓRQUEZ
MAURICIO ÁLVAREZ-R.
Instituto Alexander von Humboldt, Apartado 53207, Bogotá, Colombia.

ANA MARÍA UMAÑA
Instituto Alexander von Humboldt, Apartado 8693, Bogotá, Colombia.

THOMAS M. DONEGAN
Christ's College, Cambridge University, CB2 3BU, U.K.

ANDRÉS M. CUERVO
Departamento de Biología, Universidad de Antioquia, Apartado 1226, Medellín, Colombia.

ABSTRACT

We present significant new information on the distribution and status of 138 species of birds from the Andean East Slope of Colombia, based upon fieldwork between 1990 and 2000 at 28 sites from central Dpto. Boyacá south to the Ecuador border. The first Colombian specimens of two species (*Campylopterus villaviscensio*, Napo Sabrewing; *Myrmotherula spodionota,* Foothill Antwren) are reported. Three other taxa (*Ocreatus underwoodii addae, Piculus leucolaemus leucolaemus* and *Myiophobus p. phoenicomitra*), the first two sometimes considered species distinct from known Colombian forms, represent first reports from Colombia based upon sightings or photographs; we add several more sightings of two species (*Pipreola chlorolepidota, Iridisornis analis*) previously known from single sight records. In all, we report 35 species from the Andean East Slope of Colombia for the first time, southward range extensions on this slope for 47 species, northward extensions for 21, upward or downward altitudinal extensions for 19, filling in of major discontinuities in distribution for 22; for ten of the latter, known from very few reports, new information indicates a continuous distribution and far greater abundance than previously supposed. Range extensions and previously undiscovered populations of several restricted-range, Vulnerable, Near-threatened and Threatened species help to emphasize the importance of implementing conservation measures in the face of the increasing colonization pressures and insecurity. Based on our observations, we present several recommendations for setting conservation priorities in this rich but still relatively poorly known region.

Key words. Andean East Slope, birds, Colombia, conservation, distribution, status.

RESUMEN

Presentamos información nueva y significativa sobre la distribución y situación de 138 especies de aves de la vertiente oriental de los Andes colombianos, con base en trabajo de campo entre 1990 y 2000 en 28 sitios desde el centro-oriente del Dpto. Boyacá hasta la frontera con Ecuador. Registramos los primeros ejemplares coleccionados en territorio colombiano de *Campylopterus villaviscensio* (Trochilidae) y *Myrmotherula spodionota* (Formicariidae). Presentamos los primeros registros visuales o fotográficos para *Ocreatus underwoodii addae, Piculus l. leucolaemus* y *Myiophobus p. phoenicomitra*, las dos primeras a veces consideradas como especies distintas de formas colombianas, y varios registros visuales adicionales para *Pipreola chlorolepidota* y *Iridisornis analis*, antes anotadas en Colombia con base en un solo avistamiento cada uno y aún no documentadas con ejemplares. En total registramos a 35 especies por primera vez sobre la vertiente oriental de los Andes colombianos; para 47 especies nuestros datos representan extensiones significativas hacia el sur sobre esta vertiente y para 21, hacia el norte; las distribuciones altitudinales de 19 especies se extienden hacia arriba o hacia abajo; para 22 especies nuestros datos ayudan a rellenar brechas grandes en las distribuciones antes conocidas. Diez especies muy poco conocidas en esta vertiente en Colombia resultaron ser mucho más comunes y ampliamente distribuidas de lo que se creía anteriormente. Nuevos datos sobre varias especies de rango restringido y bajo algún grado de amenaza, ponen de manifiesto la importancia de tomar medidas de conservación frente a presiones cada vez mayores de colonización y deforestación. Con base en nuestras observaciones presentamos varias recomendaciones para fijar prioridades de conservación en esta región tan rica en aves y todavía pobremente conocida.

Palabras clave. Aves, Colombia, conservación, distribución, nuevos registros, vertiente oriental de los Andes.

INTRODUCTION

The Andean East Slope is a jagged wall rising abruptly from the vast interior lowlands of South America to form the western limits of the Amazon and Orinoco watersheds in Colombia. As we use the term here, the Andean East Slope includes the eastern versant of the Cordillera Oriental (Colombian Eastern Andes) south from the Tamá ridge and the Táchira Depression to the junction of this range with the main Andean ridge (Macizo Colombiano), and the eastern versant of this latter range south into Ecuador. The Serranía de Perijá, a spur of the Cordillera Oriental extending nearly due north from the Táchira Depression, forms the western part of the Lago de Maracaibo drainage, while the main Venezuelan Andes to the northeast continue the northern border of the Orinoco watershed (see Fig. 1).

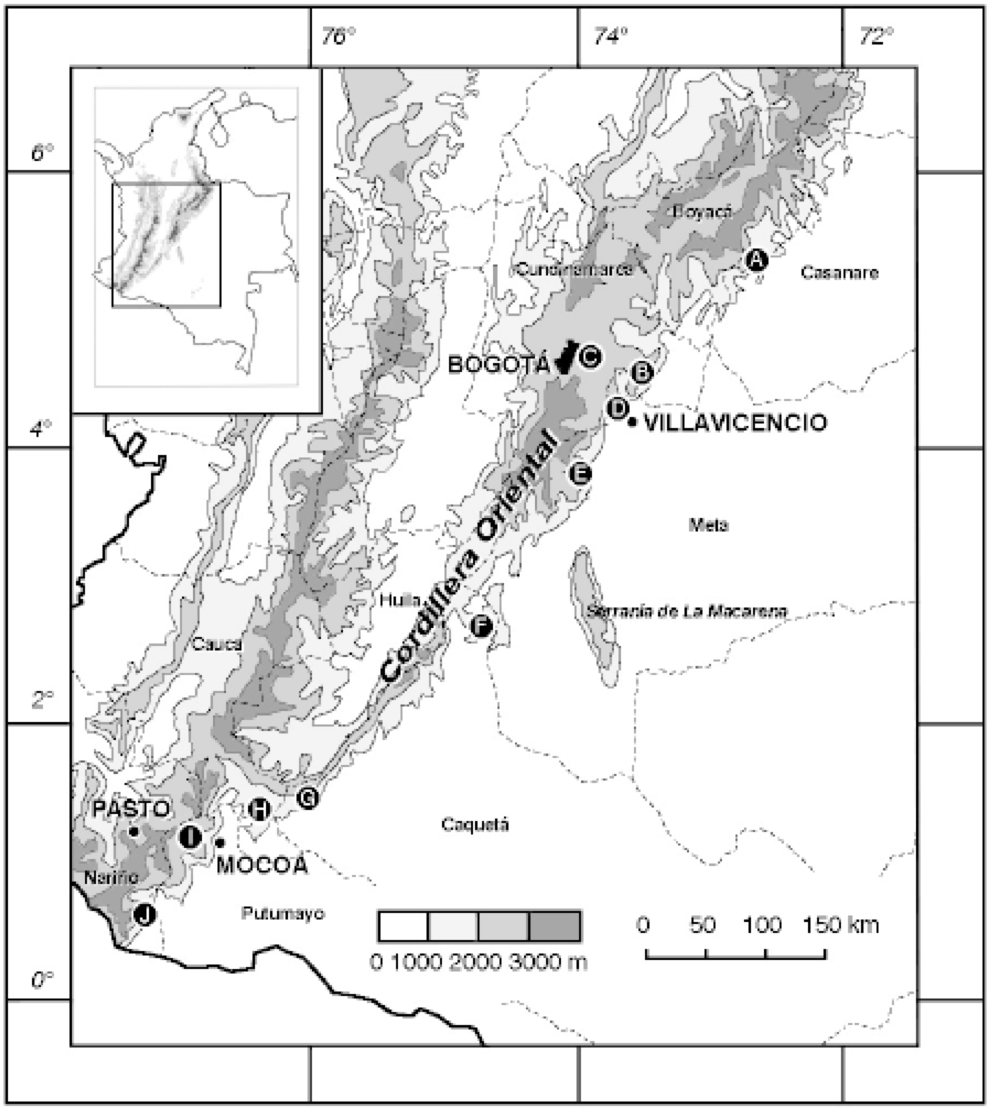
76°
74°
72°
6°
4°
2°
0°
Boyacá
Casanare
Cundinamarca
BOGOTÁ
VILLAVICENCIO
Cordillera Oriental
Meta
Serranía de La Macarena
Huila
Cauca
PASTO
MOCOA
Nariño
Putumayo
Caquetá
A
B
C
D
E
F
G
H
I
J
0 1000 2000 3000 m
0 50 100 150 km

Figure 1. Map of the Andean East slope in Colombia, showing our grouped study sites, important topographic features and major cities.

Exceptionally harsh physical relief and high rainfall from convective cloud formations have long restricted human access to the Andean East Slope, hindering colonization and development as well as exploration. Until relatively recently, forest cover was continuous from the lowlands up to treeline over most of these slopes in Colombia. However, following biomedical research in the mid-twentieth century that permitted effective control of malaria and several other diseases, the pace of deforestation has increased dramatically (Viña & Cavelier 1999). During the last 40 years the Colombian government has sponsored massive road construction and colonization projects to open up the Llanos and Amazonian lowlands for exploitation. The forests of the foothills and adjacent lowlands have been eliminated from most sectors, and the few remaining forest connections between upper and lower slopes are under increasing pressure, even where nominally protected. A major highway now under construction to link Venezuela with Ecuador along the entire eastern base of the Andes will surely stimulate further deforestation and unplanned and uncontrolled exploitation.

By contrast, the pace of ornithological exploration of these slopes has been far more modest. Although a number of birds from the Andean East Slope had been described in the heyday of the “Bogotá” skin trade, the first careful sampling of the avifauna was accomplished by Chapman and his collaborators (Chapman 1917). Brother Nicéforo of the Museo de La Salle made a few collections in the 1930s and 1940s, and K. von Sneidern made extensive collections in several areas, summarized by Meyer de Schauensee (1948-1952). Personnel of the Instituto de Ciencias Naturales of the Universidad Nacional de Colombia made smaller collections at several points along the Andean East Slope from the 1950s through the 1970s (Olivares 1963, 1969, 1971), and a short visit by E. O. Willis in 1962 produced a number of important observations (Willis 1988). Other relatively brief collecting and birdwatching visits by Hilty and others in the 1970s and 1980s produced additional new records, summarized by Hilty & Brown (1986). Thus, by the end of the 1980s, information on the birds of the Andean East Slope was extremely fragmentary, based largely upon collections as much as 70 years old and a scattering of recent observations: in fact, the only presumed records for several species were “Bogotá” specimens a century old without definite data of any sort. A workshop of Colombian zoologists and botanists at the Instituto Alexander von Humboldt in Villa de Leyva in 1995 identified the Andean East Slope, especially at subtropical elevations (1000-2000 m) as one of the most poorly known regions of Colombia and of highest priority for biological exploration (IAVH 1997).

In spite of increasing security problems due to the civil conflict in Colombia, a number of visits and expeditions by the authors and others to the Andean East Slope in recent years have produced a wealth of new information on the avifauna of this important region. In this paper we summarize the most important additions to knowledge about the distribution and status of the birds of the Andean East Slope that have resulted from this fieldwork. As security problems continue to mount in the region, further fieldwork is becoming progressively more difficult, so we feel that it is important to place our observations on record at this time. We also hope that these new data will help to orient conservation efforts in this rich and still relatively poorly explored part of Colombia.

METHODS AND MATERIALS

Field work was conducted by various individuals and institutions over much of the Andean East Slope between 1990 and 2000.

Between 1990 and 1997, the Instituto de Ciencias Naturales (ICN) of the Universidad Nacional de Colombia conducted several field trips of 10-14 days to the general region of NW Meta, extreme SE Boyacá and E Cundinamarca, some as class field trips and others as biodiversity surveys under contract to regional or national institutions related to natural resource management such as IDEAM (Instituto Nacional de Estudios Ambientales y Meteorologia), Corpoguavio and Corpochivor. Ornithological data were gathered by FGS, who also made several brief visits to other areas in E Cundinamarca and, with Loreta Rosselli, conducted a 10-month study (3-6 days per month) in high Andean forest in E Cundinamarca in 1991-1992. Varying intensities of field work were conducted at each site using mist-nets, observations and sound recordings. Specimens collected are deposited in the ICN collection.

During 1997-2000, the Instituto Alexander von Humboldt sponsored rapid ecological inventories in seven sectors along the Andean East Slope. In each sector, surveys focused largely on elevations between 1000 and 2000 m with approximately two weeks per sector. Ornithological data of these surveys were taken by MAR, CIB, AMU and Sergio Córdoba. Standardized field work including observations, mist-netting and ca. 2 hours of sound recordings per day, was conducted along transects of approximately 2000 m at each study site. Specimens collected are deposited mainly in the collection of the IAVH, with a few in that of the ICN. Sound recordings by MAR and CIB have been deposited in the Banco de Sonidos Animales (BSA) at IAVH. Tissue samples of specimens were deposited with the IAVH Molecular Genetics Laboratory facilities in Cali, Colombia.

During July-August 1998 and 1999, the Colombia '98 Expedition and the Colombian '99 EBA Project studied seven selected primary forest study sites at *ca*. 300 m elevational steps from 350 m to 2450 m in the Serranía de los Churumbelos in extreme E Dpto. del Cauca, with an average of six days of intensive observations and mist-netting per site. All mist-netted bird species were weighed, measured and photographed from various angles; photographs have been catalogued with VIREO, Academy of Natural Sciences, Philadelphia. These surveys were conducted by PS, AMC and TMD, assisted in 1998 at the four lower-elevation sites by Dan Davison and Liliana Dávalos. Further details of Serranía de los Churumbelos expeditions are found in Salaman et al. (1999) and Salaman & Donegan (in prep). Specimens collected during these expeditions are housed in the collection of the ICN and sound recordings by PS and AMC have been deposited with the National Sound Archive, Wildlife Section, British Library.

For completeness, we also present significant distributional information obtained during shorter field trips to several other sites on the Andean East Slope of Colombia, and mention several previously unreported specimens in the ICN collection, collected during the 1970s and early 1980s by Hernando Romero and collaborators, that contribute important range extensions.

Localities. The data presented here were obtained at some 28 field sites distributed along approximately 500 km and 5° of latitude of the Andean East Slope in Colombia, from Boyacá to Putumayo and Nariño (Fig. 1). For easy reference, we group these localities into ten sectors, number them approximately from north to south and present their names, assignment to political subdivisions (department, municipality), coordinates and sampling effort in Table 1. Sampling effort is described in terms of field-days (FD: one FD = one day with one or more observers in the field for at least 8 hr) and mist-net hours (MNH:

Table 1. Study sites on the Andean East Slope of Colombia, numbered approximately from north to south and grouped by sector (bold face, capital letters); for each site are given the political subdivisions of Municipality and Department, coordinates of latitude and longitude, and sampling effort in terms of field-days (FD) and mist-net hours (MNH) (for definitions see text, as well as for dates, observers and ecological characteristics of each site).

Code	**Sector, Locality**	**iciality eartet**		**ooriate**		**MNH**
A1	Pajarito					
A	rrooijo		1			
M						
	ataaraaiiit		1			
	aara		1			
	raacroo					
	itaaiiit					
	raaoa		1			
	oaata			1		
	iarato			1 1		
1	otrrooaarioroa			1		
11	itatictro			1 1		
1	aia			1		
1	oaaria			11 1		
1	rato					
1	rraaaara					
N						
1	araa					
1	rroaia				1	
1	aoraa	A				
1	Prtoo	1			1	
	oao	1				
1	toooroao					
	iaaa					
	a					
	ata					
	or					
	iraor					
	ciao				1	

one MNH = one twelve-meter mist-net open for one hour). Here, we briefly mention the ecological characteristics of each site and the dates (months and years), and observer(s). Note that the number of each locality is preceded by the letter denoting its sector (see Table 1) and that numbering is continuous, not commencing anew with each sector.

A1. Pajarito. Premontane humid forest (canopy height ca. 22 m) in a largely undisturbed and isolated ridgetop forest patch in a fragmented landscape, on rocky and sandy ground, between 1200 and 1300 m. Jun 1997: CIB.

A2. Cerro Comijoque. Montane humid forest in a large area of pristine forest on steep slopes overlooking the upper Río Cusiana, with secondary forest and pastures below, at the base of Cerro Comijoque between 2000 and 2400 m, near the Sogamoso-Yopal road. The area receives very high rainfall and is frequently covered by mist: the forest is characterized by high abundance and diversity of bryophytes and vascular epiphytes, a canopy of ca. 25 m dominated by *Hyeronima oblonga* (Euphorbiaceae) and a dense understory. Jun 1997: CIB.

B3. Santa María and vicinity. Mostly secondary forest and scrub around the town of Santa María between 850 and 950 m, with less disturbed premontane wet forest on steep slopes overlooking the road up to Chivor Reservoir between 950 and 1100 m. Apr 1997: FGS.

B4. La Almenara. An extensive area of 30 yr old secondary forest with patches of remnant primary forest, mostly on steep slopes overlooking Santa María between 1250 and 1500 m. Canopy height averages 15-20m, the understory varies from very dense to sparse, mosses are abundant but vascular epiphytes are rather scarce except in remnants of primary forest; dominant trees in the young forest are tall melastomes (*Tibouchina, Miconia*). Apr 1997: FGS; Sep 2000: S. Córdoba.

B5. Vereda Campo Hermoso. Lightly disturbed to pristine, very wet cloud forest on steep slopes and on the top of Cerro El Retiro and the adjacent ridge to the west between 1700 and 2020 m, canopy height ca. 18-20 m with abundant moss and epiphytes, understory rather open with many tree-ferns. Jul 1998: FGS.

B6. Mámbita. Secondary woodland around the small town of Mámbita, largely dominated by *Albizzia carbonaria* (Mimosaceae), with taller and more diverse, disturbed forest along several streams and ravines between 800 and 900 m. Jun-Jul 1998: FGS.

B7. Vereda La Soya. Riverine scrub and secondary woodland dominated by *Albizzia carbonaria* trees along the Río Saguea (Zaguela) between 550 and 650 m. Jun 1998: FGS.

B8. Río Gazaunta, Medina. Five field sites on slopes in the upper Río Gazaunta drainage, at elevations of 1400, 1600, 1700, 1800 and 1900 m; premontane very wet forest between 1400 and 1800 m, lower montane wet forest at higher elevations to 2100 m. Forest clearance and disturbance extensive below 1400 m, forest mostly pristine above this elevation but with a few small clearings as high as 1700 m. Premontane forest notable for its abundance of hemiepiphytes, especially of the genus *Coussapoa* (Moraceae); lower montane forest characterized by a canopy height of 20-25 m and high abundance of epiphytes, especially of the Clusiaceae. Mar 1997: MAR & S. Córdoba.

C9. Finca Cárpatos. Lightly disturbed high Andean forest on moderate to steep slopes between 2800 and 3100 m: on more exposed slopes forest subject to frequent blowdowns by high winds, a 15-20 m canopy dominated by *Weinmannia* (Cunoniaceae)*, Brunellia* (Brunelliaceae) and *Tibouchina* (Melastomataceae); in more sheltered spots canopy to 25 m, dominant trees include *Ocotea calophylla* (Lauraceae) and *Hyeronima rufa* (Euphorbiaceae); understory dominated by

Chusquea bamboos and, locally, by *Geonoma weberbauri* palms; for further details see Stiles & Rosselli (1998). Sep 1991-Jul 1992: FGS & L. Rosselli.

D10. Monterredondo-El Calvario Road. Observations made along Cuchilla Loma Grande ridge between 1900 and 2400 m, ca. 3-6 km ENE Monterredondo on the main Bogotá-Villavicencio highway. Forest disturbed and patchy below 1900 m, with much pasture and second-growth scrub. Between 1900 and 2400 m there is very wet, lightly to moderately disturbed lower montane forest (described more fully in Stiles 1992) with less disturbed montane forests higher up. May 1990, Jan 1991: FGS with P. G. Kaestner, L. M. Renjifo, L. Rosselli.

D11. Restrepo. Small (ca. 3 ha) patch of secondary woodland with surrounding areas of pastures with many trees, second-growth scrub and taller secondary forest along streams, 600-650 m, mainly near the CREAD field station of the Universidad Tecnologica de los Llanos ca. 0.7 km NW of the town of Restrepo. Feb 1990, Oct 1994, Apr 1996: FGS.

D12. Salinas de Upín. Moderately to heavily disturbed forest and secondary woodland and scrub on steep slopes and ridges between 900 and 1100 m. Oct 1994, Apr 1996: FGS.

D13. Bosque de Bavaria. A moderate-sized (ca. 400 ha) fragment of lightly to moderately disturbed forest on slopes above the Bavaria brewery ca. 2 km NW Villavicencio, protected by the brewery as a watershed preserve. At its lower edge (ca. 500 m) near the brewery and the Río Guatiquía, mostly old secondary forest dominated by *Albizzia carbonaria*; on gentler slopes and ridges to ca. 850 m forest is tall (25-30 m canopy) with a rather sparse understory, many lianas and rather few epiphytes; on steeper slopes at higher elevations (to ca. 1050 m) the forest is lower and scrubbier, with secondary forest and scrub on frequent landslide scars. Oct 1994, Oct-Nov 1995, Apr 1996, Dec 1996: FGS, CIB, L. Rosselli, S. De la Zerda & S. Córdoba.

E14. Vereda El Vergel Alto. Dense patches of moderately to heavily disturbed forest separated by pastures between 1100 and 1250 m; forest more continuous but still moderately disturbed 1250-1350 m, on notably shallow, rocky soil. Jun 1996: FGS.

E15. Serranía de Aguas Claras. Heavily cut-over but regenerating tropical wet forest, characterized by huge gaps in the canopy filled by impenetrable second growth, along steep ridges between 700 and 900 m; between 900 and 1075 m slopes are less steep and forest is more continuous, only lightly disturbed except along a major trail to a recently abandoned farm at 1075 m with scrubby pastures and low second-growth woodland. Nov 1995: FGS.

F16. La Esperanza. Patch of premontane wet forest surrounded by pastures along the Río Pato near the town of Guayabal, between 1300 and 1390 m. Dec 1997: CIB & MAR.

F17. Cerro La Mica. Primary forest dominated by the palm *Wettinia praemorsa* with a canopy of 20-25 m between 1600 and 1800m, then montane forest with a lower canopy (15 m), abundant epiphytes and a very dense understory between 1800 and 2150 m. Also secondary woodland around Finca Andalucía at 1600 m. Nov 1997: CIB & MAR.

G18. Fragua. Transect located in Vereda La Esmeralda, in subtropical forest characterized by a rather low canopy of 20-22 m and a dense, tangled understory due to frequent treefalls on steep slopes, between 900 and 1400 m in the upper watershed of the Río Yurayaco. Sep 2000: AMU.

H19. Puerto Bello. Lowland wet forest at the base of the Serranía de los Churumbelos at 350 m, near the newly-constructed road to the hamlet of Puerto Bello in the foothills. A 1200 m transect extended from the forest edge through a transition of tall secondary forest to primary forest with a canopy height of ca. 30 m. Jul 1998; 7 FD, 2700 MNH and Aug 2000: PS, AMC, TMD et al. Further data on this and the following six localities in the Serranía de los Churumbelos can be found in Salaman et al. (1999).

H20. Río Nabueno. An extensive tract of very wet tropical forest with a low (ca. 20 m) canopy and a dense understory, on a steep east-facing flank of the Serranía de los Churumbelos. An old hunters' trail climbing steeply from the Río Nabueno to a flat ridgetop at ca. 650-700 m formed the transect. Jul 1998: PS, AMC, TMD et al.

H21. Alto Río Hornoyaco. A 700m transect ran through 400 m of primary forest on steep slopes, then into dense young secondary forest (3-5 yr old) up to a pasture clearing of ca. 4 ha, 1000-1100 m. In floristic composition and structure the forest appeared most similar to lower montane forests of much higher elevations. Aug 1998: PS, AMC, TMD et al.

H22. Villa Iguana. The transect extended for 800 m over a plateau between two mesetas in upper premontane very wet cloud forest at ca. 1450 m with a low canopy (ca. 12 m) and very high density and diversity of epiphytes and bryophytes, including many elements characteristic of higher elevations. Brief surveys were also made on the adjacent meseta of Alto Cagadero (1600 m). Aug 1998; PS, AMC, TMD et al.

H23. Nabú. The transect extended 800 m in primary lower montane wet forest along a ridge at 1900 m on the NW flank of the Serranía de los Churumbelos between the Río Villalobos and the Mocoa-Pitalito highway. The forest was characterized by a dense understory, a 20-25 m canopy dominated by oaks (*Quercus*) and a dense growth of epiphytes. Jul 1999: PS, AMC, TMD.

H24. Tatauí. A 600 m transect extended along a flat ridgeline at 2250 m in a stunted forest (canopy height 7m) with a dense understory dominated by terrestrial bromeliads and *Sphagnum* mosses, similar in structure to treeline elfin forest, influenced by perpetual mists and strong winds. Jul 1999: PS, AMC, TMD.

H25. El Dorón. The transect ran along a ridge at 2500 m on the divide between the Amazon and Río Magdalena watersheds at the crest of the Serranía de los Churumbelos, from a clearing through primary forest with some selective logging. The rather low canopy (ca. 15 m) was dominated by stunted white oaks (*Quercus* sp.) with heavy epiphyte loads and the understory was dominated by flowering Ericaceae, shrubs and epiphytes. Jul 1999: PS, AMC, TMD.

I26. El Mirador. Rather stunted forest mosaic in and between landslide scars on very steep slopes along the Pasto-Mocoa road between kms 116 and 125, at elevations between 1500 and 2100 m in the upper Río Guinea-Río Blanco watersheds. The area is subjected to high rainfall and is almost constantly shrouded in mist. Mar 1997, 1998 and 1999, Oct 1997: PS et al.; Jan 1999: MAR, AMU.

I27. Estación de Bombeo Guamués. An observation transect was conducted along the trans-Andean oil pipeline west of Orito, through humid foothill secondary growth to mature forest at ca. 800 m. Aug 1993: PS et al.

J28. Río Rumiyaco. Four sites at elevations of 800, 1000, 1400 and 1550 m were studied in the Río Rumiyaco watershed of the Reserva Indígena Kofán. Above 750 m forests in the reserve were in good condition, with only a few clearings for coca and subsistence farming by the Kofán indigenous community. Below 1000m forests showed a strong Amazonian influence and were dominated by palms, especially *Iriartea deltoidea*, with a canopy 30-35 m tall. Premontane wet forest (1200-ca. 1700 m) was dominated by one species of *Eleagia* (Rubiaceae) with an abundance of hemiepiphytes of the family Clusiaceae; canopy height averaged 25-30 m. Sep-Oct 1998: CIB, MAR.

RESULTS

Here we mention briefly our records of each species, and how these records add to previous knowledge of the species' status or distribution on the Andean East Slope in Colombia, based principally on Hilty & Brown (1986), the most recent general summary. Previously known elevational limits are from Hilty & Brown (*op. cit*)., Ridgely & Tudor (1989, 1994) and Parker *et al*. (1996). We mention the numbers of individuals captured in mist-nets or collected at a given locality in parentheses.

***Tinamus tao*, GRAY TINAMOU:** Individuals of this very large, plain tinamou were observed foraging on two separate occasions at Villa Iguana (H22) by TMD on the floor of pristine forest. Rare and local in mainly well-shaded foothill forests of four areas of Colombia, including along the eastern base of Cordillera Oriental northwards from the Serranía de la Macarena (3°N) (Hilty & Brown 1986). This record represents a 320 km southwards extension and provides a link to populations in eastern Ecuador.

***Leucopternis princeps*, BLACK-CHESTED (BARRED) HAWK:** FGS saw and heard a pair soaring and calling freely over forest and pastures above El Vergel Alto (E14) on several occasions on 8 and 9 Jun 1996; his attention was first drawn to the birds by their distinctive loud, melodious calls. Apparently the first record for the Andean East Slope in Colombia, although known from this slope in Ecuador and from the head of the Magdalena Valley in Dpto Huila.

***Micrastur ruficollis*, BARRED FOREST-FALCON:** An adult female was caught and photographed at Alto Río Hornoyaco (H21) on 7 Aug 1998 in primary forest. Several individuals were heard at dawn in primary forest at Villa Iguana (H22) between 12 and 17 Aug. The species was not heard despite dawn searches below 1000 m. Also, one was seen at 1500 m in the Río Gazaunta watershed above Medina (B8), and this species was heard calling at dawn and once during a very dark period just before a heavy rain at La Almenara (B4) on 22 and 24 Apr 1998. These records represent the first for the Andean East Slope; the species was known in eastern Colombia only from two sites in the Serranía de la Macarena.

***Micrastur gilvicollis*, LINED FOREST-FALCON:** Between 2 and 4 individuals were heard regularly at sunrise (05:50 h) in selectively logged and primary forest at Puerto Bello (H19), 16-20 Aug 1998. At Río Nabúeno (H20) at least 3 individuals were tape-recorded calling at dawn from emergent trees along the forested ridge on 25-30 July 1998 (PS), and an adult female was caught on 27 Jul at 06:45 hrs attempting to take small birds caught in a mist-net. Previously recorded from five lowland humid forest localities across eastern Colombia but not from the Andean East Slope, where it appears to be replaced by *M. ruficollis* at higher elevations.

***Odontophorus hyperythrus*, CHESTNUT WOOD-QUAIL:** Found to be fairly common at middle and upper-elevation sites in the Serranía de los Churumbelos: heard at Villa Iguana and Tatauí, heard and seen at Nabú (H22-24), heard daily and tape-recorded at El Dorón (H25), where two family groups appeared to be present along the transect. These records represent a small southeast range extension from the head of the Magdalena valley, but are the first for the Andean East Slope.

***Geotrygon frenata*, WHITE-THROATED QUAIL-DOVE:** Observed and captured on four occasions at Alto Río Hornoyaco (H21) in primary forest: twice flushed from the forest floor at Villa Iguana. Previously recorded on the Andean East Slope only from Nariño, and from the head of the Magdalena Valley.

***Ara militaris*, Military Macaw:** Flocks of up to 12 individuals were seen regularly at Alto Río Hornoyaco and Villa Iguana (H21,22) throughout the day and were observed flying and feeding throughout the forested valleys from 1600 m (Alto Cagadero) down to *ca.*700 m. Flocks were observed daily at both La Esperanza and Cerro La Mica (F16, 17), and a flock was also observed flying over El Mirador (I26) at 2100 m on 18 Aug 1998. The considerable localized activity, particularly in forests adjacent to the large limestone cliffs of Alto Cagadero, suggests that the area is an important breeding and / or foraging area for this threatened species, and that the protection of these forests could be important for the conservation of this species, whose disjunct and nomadic populations in various upland areas of Colombia are declining rapidly, leading to the classification of this species as Vulnerable in Collar et al. (1994).

***Touit stictoptera*, Spot-winged Parrotlet:** One flock was heard and observed at 1600 m at Cerro La Mica (F17) on 24 November 1997 by CIB and A. Repizzo. This poorly known and Threatened species was previously known from three widely scattered subtropical localities in Colombia, including from Serranía de Macarena and west slope of the Cordillera Oriental. This is the first record for the Andean East Slope and has important conservation implications, being from within a protected area containing an extensive block of pristine forest over a wide elevation range.

***Pionus chalcopterus*, Bronze-winged Parrot:** On 12 Jan 1991 FGS observed a pair perched in a tall snag and a group of four flying over a forested canyon at ca. 2000 m on the Monterredondo-El Calvario road; the voice of this species was noted as being less metallic and more strident than that of Blue-headed Parrot *P. menstruus* (FGS). Individuals and groups of up to 4 were observed repeatedly at La Esperanza and Cerro La Mica (F16-17); one individual observed by MAR was feeding on fruits of *Coussapoa* sp. in an emergent tree in forest canopy. These are the first records of this species on the Andean East Slope, although it had been recorded at the head of the Magdalena valley.

***Pionus sordidus*, Red-billed Parrot:** This species appeared to replace the preceding one in the Serranía de los Churumbelos, with small flocks observed daily at Nabú, Tatauí and El Dorón (H23-25). This is the first definite record for the Andean East Slope south of the Serranía de Perijá, although the species is known from "Bogotá" skins and has been recorded from the head of the Magdalena valley just across the divide.

***Amazona mercenaria*, Scaly-naped Parrot:** Two individuals were observed flying over primary forest at Cerro Comijoque (A2) on 9 Jun 1997; also seen on several occasions over the heavily forested upper slopes of La Esperanza (F16). Observed daily flying over Tatauí (H24) at dawn and dusk. Previously recorded only from Dptos. Meta and Cundinamarca (*ca.* 4°N) on the Andean East Slope, these records represent range extensions to both north and south.

***Bolborhynchus lineola*, Barred Parakeet:** Flocks of 6-20+ seen on numerous occasions at Finca Cárpatos between Dec 1991 and Feb 1992 in association with a seeding episode of the common *Chusquea* bamboo; none were seen before or after these dates. Several flocks of 8-30+ were seen and heard daily flying south at dawn and north at dusk over Tatauí and El Dorón (H24-25), clearly moving between roosting and foraging areas. Previously known on the Andean East Slope from one site in Dpto. Caquetá and two in Dpto Norte de Santander; the present reports help to fill a huge gap in the known range and extend it slightly southward.

***Pulsatrix melanota,* Band-bellied Owl:** An adult was caught at 05.45 hrs on 26 July 1998 at Río Nabúeno (H20) and photographed. Individuals and pairs were heard and tape-recorded most evenings in primary forest at this site (25-30 Jul 1998) and Alto Río Hornoyaco (H21, 3-9 Aug). A pair was observed and tape-recorded in the canopy of an emergent tree over several days at 1000 m at Río Rumiyaco (J28). One individual was observed in August 1993 at Estación de Bombeo Guamués (I27) (Javier Bustos *per* PS). These represent the first Colombian records from definite localities: the species was previously known only from a specimen without definite locality or date (Hilty & Brown 1986). *P. melanota* appears to replace the lowland Spectacled Owl *P. perspicillata* in foothill forests upwards from *ca.*700-1100 m, although in Ecuador the two species are locally syntopic (R. Ridgely personal communication).

***Glaucidium jardinii,* Andean Pygmy-Owl:** Heard calling nightly and tape recorded at Nabú (H23). Known previously in the Cordillera Oriental in Colombia only as far south as the latitude of Bogotá: this record helps fill a large gap as it is also known from the eastern slope of the Andes in Ecuador, south to Bolivia.

***Ciccaba nigrolineata,* Black-and-white Owl:** One adult heard and seen repeatedly at close range (<10 m) at Mámbita (800 m) on grounds of the Corpoguavio base camp (and next to a military base, making collection impossible), where it hunted large insects and bats drawn to bright streetlights adjoining a deep wooded ravine. Its call of *"hoof, HOWW"* was typical of *nigrolineata* from both Colombia and Costa Rica (FGS), although this species and *C. huhula* have exceptionally variable vocalizations, with similar repertoires (R. S. Ridgely, pers comm.). Apparently this is the first definite record on the Andean East Slope.

***Nyctibius maculosus,* Andean Potoo:** Heard (tape-recorded) and seen from dusk at Tatauí and El Dorón (H24-25). Previously recorded in Colombia from "Bogotá" skins and, on the Andean East Slope, from Dpto Nariño by the Ecuadorian border and in Dpto. Norte de Santander on the Venezuelan border. Formerly considered a race of White-winged Potoo, recently separated because of its very distinct voice and plumage (Fjeldså and Krabbe 1990).

***Aeronautes montivagus,* White-tipped Swift:** Single birds and pairs were observed feeding fairly low over forested valleys below Alto Cagadero at Villa Iguana (H22) on 16 Aug 1998; individuals appeared to fly into the cliffs, suggesting nesting. The only previous records for the Andean East Slope came from sightings above Villavicencio (Hilty & Brown 1986); also recorded in the Sierra de Chiribiquete (Stiles et al. 1995). The species appears to be much more widespread than previously thought in Colombia, in highland forested areas near cliffs.

***Phaethornis guy,* Green Hermit:** Individuals were caught at La Esperanza (1) and Cerro La Mica (4, 3 collected; to 1750 m), Fragua (10, 1 collected), at Río Nabúeno, Alto Río Hornoyaco and Villa Iguana (H20-22: 3,9 and 2, respectively) and at Río Rumiyaco (6, 3 collected). Leks were observed and tape-recorded at Cerro La Mica and Río Rumiyaco (1000 and 1460 m). Previously known (race *apicalis*) on the Andean East Slope only south to ca. 3° (Serranía de la Macarena) in Colombia, although recorded from this slope in Ecuador.

***Phaethornis syrmatophorus,* Tawny-bellied Hermit:** The very distinctive, contrastingly colored race *columbianus* was captured at 1850-2000 m on the Monterredondo-El Calvario road (2, 1 collected), Río Gazaunta (6, 2 collected), Cerro La Mica (3, collected; also tape recorded), Villa Iguana (9, 1 collected), Nabú (20) and El Dorón (3). This race had not been recorded previously on the Andean East Slope in Colombia, with the closest records being from the head of the Magdalena valley in Dpto. Huila and on the Andean east slope of Ecuador. It appears to be continuously distributed along this slope N at least to Dpto. Cundinamarca.

***Eutoxeres condamini*, BUFF-TAILED SICKLEBILL:** Individuals were caught at Puerto Bello (9), Río Nabúeno (18) and Alto Río Hornoyaco (3); these latter records, at 1100 m, represent an altitudinal increase in Colombia from 400 m in Colombia (although it is known up to 1300 m in Ecuador; R. S. Ridgely, pers. comm.). At Puerto Bello, a nest was being constructed on the underside of a palm leaf *ca*. 5 m above the ground. Interestingly, this and the following species were sympatric at Río Nabúeno and Alto Río Hornoyaco.

***Eutoxeres aquila*, WHITE-TIPPED SICKLEBILL:** Caught at La Almenara (2), Río Gazaunta (5, 1 collected), Serranía de Aguas Claras (4), La Esperanza (1, collected), Cerro La Mica (3), Fragua (2 collected), Río Nabúeno (6), Alto Río Hornoyaco (5), Villa Iguana (3), Nabú (4), and Río Rumiyaco (1 at 1050 m). Previously known on the Andean East Slope from one record each from Dpto Cundinamarca and Dpto. Caquetá: the present records indicate that the species is probably continuously distributed along this slope from 5°N southwards.

***Doryfera ludovicae*, GREEN-FRONTED LANCEBILL:** A specimen taken by FGS at 650 m by the Río Guayuriba, Acacías just south of Villavicencio (fairly close to Monterredondo) on 1 Oct 1995 represents an unusually low elevation record, previous records falling between 1400-2700 m according to Hilty & Brown (1986), but once recorded to 700 m in eastern Ecuador (R. S. Ridgely, pers. comm.).

***Popelairia popelairii*, WIRE-CRESTED THORNTAIL:** A female was observed in secondary forest at 1600 m on Cerro La Mica (F17) by CIB, and a male was observed at 800 m beside the Pasto-Mocoa road below El Mirador (I26) by PS in Mar 1999. The only previous definite records on the Andean East Slope in Colombia were from Medina, Dpto. Cundinamarca and Villavicencio, Dpto. Meta.

***Campylopterus villaviscensio*, NAPO SABREWING:** Individuals were caught at Fragua (1, collected), Alto Río Hornoyaco (9, 1 collected), Villa Iguana (6), and Río Rumiyaco (1 collected, 950 m) in primary forest. Notably, one male caught and marked at Alto Río Hornoyaco was recaptured two days later at Villa Iguana (*ca.* 3 km distant and 300 m higher), showing that individuals may range over wide areas. This species, an endemic of the Ecuador-Peru East Andes EBA, was previously known in Colombia from a single report from Putumayo (Salaman & Mazariegos 1998). The present records include the first Colombian specimens and a small northward range extension.

***Urosticte ruficrissa*, RUFOUS-VENTED WHITETIP:** Individuals were captured at Cerro La Mica (3, 2 collected), Fragua (3), Villa Iguana (7) and El Dorón (8, 1 collected). This species was previously known only from SE Nariño on the Andean East Slope, such that the records from Cerro La Mica represent a 250 km northwards range extension; the Fragua and Los Churumbelos records also broaden its known elevation range in Colombia from 1600-2300 to 1000-2450 m.

***Phlogophilus hemileucurus*, ECUADORIAN PIEDTAIL:** Two individuals caught and collected at 1000 m at Fragua represent the northernmost for this species, which was also caught at Alto Río Hornoyaco (3); common on the Río Rumiyaco (J28) with 4 collected in Oct 1998 (MAR). This little-known, Near-threatened species, an endemic of the Ecuador-Peru East Andes EBA (Collar et al. 1994), was previously known in Colombia from three specimens in Dpto Putumayo (Fitzpatrick & Willard 1982).

***Heliodoxa aurescens,* GOULD'S JEWELFRONT:** Individuals were captured at Puerto Bello (1), Río Nabúeno (6), and Río Rumiyaco at 700 and 1000 m (2, collected). The species has been recorded widely but sparsely in the lowlands (to 400 m) of Amazonian Colombia, but not previously on the Andean East Slope.

***Heliodoxa schreibersii,* BLACK-THROATED BRILLIANT:** Individuals were caught at Fragua (2, collected), Río Nabúeno (4), Alto Río Hornoyaco (2), and Río Rumiyaco (5, 4 collected between 1350 and 1460 m). The species was previously known in Colombia from scattered sites in the Amazonian lowlands, and the Andean East Slope in Nariño (Hilty & Brown 1986, Willis 1988). The present records extend the range northward in the Cordillera Oriental, and upwards from 1000 m.

***Heliodoxa gularis,* PINK-THROATED BRILLIANT:** Three individuals were caught at Río Nabúeno (H20), where they were sympatric with *H. schreibersii*. Known in Colombia only from a specimen collected in 1971 at Estación de Bombeo Guamués (H26) (Fitzpatrick & Willard 1982). The present report represents a small (70 km) northwards range extension and an elevational extension down to 700 m for this Threatened foothill species, endemic to the Ecuador-Peru East Andes EBA from 900-1050 m (Stattersfield *et al.* 1997), although collected down to 350 m in NE Ecuador (UKMNH; R. S. Ridgely, pers. comm.).

***Coeligena coeligena,* BRONZY INCA:** Individuals were captured at La Almenara (B4; 1, collected), Río Gazaunta, Medina (B8; 1, collected, 1500m, Fragua (2, collected) and at Villa Iguana (3, 1 collected), Nabú (18), Tatauí (7) and El Dorón (3) in the Serranía de los Churumbelos (H22-25). Additional observations come from the Monterredondo-El Calvario road (1900 m on 11 Jan 1991), Vereda Campo Hermoso (B5) at 1900-1950m and Cerro La Mica (F17) at 1800-1900 m. Previously unrecorded south of Norte de Santander on the Andean East Slope, this species rather appears to be continuously distributed thereon and by no means rare.

***Boissonneaua flavescens,* BUFF-TAILED CORONET:** Two captured, one collected at 1400-1900 m in the Río Gazaunta watershed above Medina; commonly observed and caught at El Dorón (H25; 20). Also seen once at 1580 m (MAR), and twice at 1800-2200m by CIB at Cerro La Mica. Previously unrecorded on the Andean East Slope in Colombia south of ca. 6°N in Dpto. Casanare, this species also appears to be continuously distributed over most of its length.

***Eriocnemis alinae,* EMERALD-BELLIED PUFFLEG:** Observed and caught at Cerro La Mica (2 collected), and common in the Serranía de los Churumbelos highlands at Tatauí (19) and El Dorón (41; 1 collected); 1 also caught and collected at 1000 m in the upper part of the Bosque de Bavaria (D13) by S. Córdoba, CIB *et al*. Also common at El Mirador (I26) (Salaman & Mazariegos 1998), where 3 captured, 2 collected by MAR and AMU. Previously known from a very few scattered localities in the Colombian Andes, none on the Andean East Slope (which now appears to represent the center of the species' distribution in Colombia), the nearest being the head of the Magdalena valley. The Bosque de Bavaria record represents an unusually low elevation for this species that appears to favor oak-dominated montane forest at 1700-2800 m.

Ocreatus underwoodii, **BOOTED RACKET-TAIL:** Several individuals of the distinctive *addae* subspecies-group (ssp. *peruanus*), characterized by buffy rather than white leg-puffs, were caught and photographed at El Mirador at 1600 m in Mar 1998 by PS and L. Mazariegos. Considered by some authors to represent a separate species, the *O. addae* group was previously unrecorded from Colombia, being known from the Andean East Slope from NE Ecuador southwards. Interestingly, just 50 km north on the Andean East Slope, three white-booted *O. underwoodii ambiguus* were caught in the Serranía de los Churumbelos at Tatauí (1) and El Dorón (2).

Opisthoprora euryptera, **MOUNTAIN AVOCETBILL:** A male with enlarged testes caught and collected in subpáramo at 2900 m at Finca Cárpatos (C9) on 19 May 1991 represents the first record for the Cordillera Oriental and a 500 km northwards range extension (from SE Nariño) on the Andean East Slope in Colombia.

Schistes geoffroyi, **WEDGE-BILLED HUMMINGBIRD:** Single individuals were captured and collected at the Río Gazaunta (B8) by S. Córdoba and MAR, La Esperanza (F16; 1350m) by CIB, Fragua (G18; 1400 m) by AMU, El Mirador (I26; 1900 m) by MAR and AMU, and Nabú (H23). An additional bird was captured at El Mirador (I26; 1600 m) in Mar 1999 by PS et al. This elusive and rarely observed species was previously unknown from the Andean East Slope in Colombia, but is probably distributed along its entire length.

Acestrura heliodor, **GORGETED WOODSTAR:** Caught at Cerro La Mica (F17, 1, collected) and El Dorón (1); previously unrecorded south of Medina, Dpto. Cundinamarca (vicinity of locality B8) on the Andean East Slope.

Galbula pastazae**, COPPERY-CHESTED JACAMAR:** A male was observed foraging in the understory of secondary forest, associated with a mixed-species foraging flock at Estación de Bombeo Guamués (H26) on 27 August 1993 (PS). A Threatened species (Collar *et al*. 1992) that is restricted to premontane forest of eastern Ecuador and in Colombia known from four specimens collected at El Carmen, SE Nariño (1600 m) in 1970 (Fitzpatrick & Willard 1982). This record is the second locality for Colombia and 50 km northwards range extension.

Notharchus tectus, **PIED PUFFBIRD:** Two individuals were observed singing in the upper branches of a tall roadside tree at Puerto Bello on 19 Jul 1998. East of the Andes this species was known from only three lowland localities, one near the NW base of the Serranía de la Macarena (Alvarez *et al.* 1993). This record represents a significant southwesterly range extension for eastern Colombia.

Malacoptila fulvogularis, **BLACK-STREAKED PUFFBIRD:** Several birds were observed at 1700 m on the Monterredondo-El Calvario road (D10) on 1 Oct 1997 by PS; one was seen at 1050 m on the Serranía de Aguas Claras (E15) accompanying a mixed flock in forest understory by FGS on 23 Nov 1995. At La Esperanza (F16) a female was captured and collected at 1390 m. Two individuals were observed and one captured in primary forest at Alto Río Hornoyaco (H21) on 5 Aug 1998. Previously known on the Andean East Slope from an old specimen labeled "Villavicencio" that probably came from higher elevations, as well as "Bogotá" skins; the present records suggest that the species is distributed continuously over at least the southern part.

Micromonacha lanceolata, **LANCEOLATED MONKLET:** A pair was captured at Río Nabúeno (H20) in primary forest. This Near-threatened species was previously recorded on the Andean East Slope only from SE Nariño, although also in the Serranía de la Macarena at 400 m (Hilty & Brown 1986).

***Eubucco bourcierii,* Red-headed Barbet:** Observed, often in pairs attending mixed-species foraging flocks, at Pajarito (A1), La Almenara (B4, where tape recorded Apr 1998), Río Gazaunta (B8), Serranía de Aguas Claras and El Vergel (E14-15), La Esperanza (F16, 1 collected at 1390 m), Alto Río Hornoyaco (H21), El Mirador (I26, 1 collected by MAR) and Río Rumiyaco (tape recorded, 1 captured and collected at 1000 m). These records indicate that this species is continuously distributed along most or all of the Andean East Slope, where previously known only from Dptos. Meta (4°40'N) and Caquetá (2°30'N).

***Aulacorhynchus haematopygius,* Crimson-rumped Toucanet:** A group of 3-4 birds seen at ca. 900 m at Serranía de Aguas Claras (E15); also one captured at Villa Iguana, several observed at Nabú (H22-23); observed and tape-recorded at Río Rumiyaco (J28). This species had not been observed south of Dpto. Cundinamarca in the Cordillera Oriental (Hilty & Brown 1986).

***Picumnus squamulatus,* Scaled Piculet:** One individual was caught in young secondary growth around a clearing at Alto Río Hornoyaco (H21); also observed twice in secondary forest (850 m) at La Esperanza (F16). These records and a sighting above Florencia, Dpto Caquetá (Pearman 1993) indicate that this species of open drier woodland of the Llanos Orientales Hilty & Brown 1986) is extending its range southwards into wetter regions response to forest clearance, as has occurred with other open-country species elsewhere in Colombia (e. g., Stiles *et al*. 1999) and Central America (Stiles & Skutch 1989).

***Veniliornis kirkii,* Red-rumped Woodpecker:** One to three birds were seen on several occasions (the red rump clearly noted) in disturbed forest at 500-550 m in the Bosque de Bavaria (D13) in Oct 1994, Apr 1995 and Oct 1996. These represent the first records for the Andean East Slope in Colombia, although the species is known from this slope in Venezuela (Phelps & Meyer de Schauensee 1981).

***Piculus leucolaemus,* White-throated Woodpecker:** Two separate individuals were observed for prolonged periods at Alto Río Hornoyaco (H21) on 5-7 Aug 1998 in mixed-species foraging flocks on the edge of primary forest (PS, AMC). Individuals foraged between 5 to 10 m up on outer limbs of tall second growth trees and on various occasions gave a distinctive harsh "piissh" similar to *P. litae* (PS pers. obs). The *P. leucolaemus* superspecies was recently split (Winkler *et al*. 1995), with only Litá Woodpeaker *P. litae* of the Pacific coastal forest (Chocó) previously known to occur in Colombia. Nominate *P. leucolaemus*, although distributed throughout Amazonia, including quite widely in eastern Ecuador to within a few km of the Colombian border (R. S. Ridgely, pers comm.), had not been recorded in Colombia. We should note that the illustration (plate 21 #6) of *Piculus leucolaemus* in Hilty & Brown (1986), which should be of *litae* from the text, is in reality *P. (l.) leucolaemus*.

***Campephilus haematogaster,* Crimson-bellied Woodpecker:** Observed at 1400 and 1700 m in the Río Gazaunta watershed (B8), 1 collected (MAR & S. Córdoba). A pair was caught and photographed at 1800 m at El Mirador (I26) in March 1998 by PS, one was observed and tape-recorded at 1500 m at Cerro La Mica (F17) by MAR, and a pair was observed in the subcanopy of forest at 1100 m at Río Rumiyaco (J28) by MAR & CIB. The only previous record for the Andean East Slope in Colombia was from Río Negro, Dpto. Casanare (6°10'N); these records fill a 900 km gap to populations on this slope in Ecuador.

***Xiphocolaptes promeropirhynchus,* Strong-billed Woodcreeper:** A pair was caught at Puerto Bello, one of which was collected. The lowland Orinoquian-Amazonian form (ssp. *orenocensis*) is known from SE Nariño and might have been expected at the base of the Andean East Slope; however, the specimen appears indistinguishable from specimens of *X. p. virgatus* in the ICN collection taken at 1800 m or higher in the Andes of Dpto. Cauca. This suggests that the lowland and highland forms may not be disjunct, as previously supposed (Hilty & Brown 1986).

***Campyloramphus pucherani*, Greater Scythebill:** One was seen accompanying a mixed flock in cloud forest at 2400 m on the Monterredondo-El Calvario road on 20 May 1990 by P. G. Kaestner and FGS. Also, there is an unsexed specimen in the ICN collection taken at Hda. Comijoque near locality A2 at 2080 m on 7 Mar 1980 by H. Romero. Previously unrecorded from the Andean East Slope in Colombia.

***Campylorhamphus pusillus*, Brown-billed Scythebill:** Individuals were captured in dense vegetation by an overgrown treefall gap at Villa Iguana (1) and at Nabú (1). Also, one was observed at 1075 m in the Serranía de Aguas Claras (E15). The Los Churumbelos records extend the species' known range on the Andean East Slope south from N Boyacá (ca. 7° N) in Colombia (cf. Hilty & Brown 1986).

***Siptornis striaticollis*, Spectacled Prickletal:** One was caught at Nabú (H23) and collected. This little-known species was previously reported on the Andean East Slope from a sighting in 1978 above Florencia, Caquetá (Hilty and Brown 1986). The specimen appears to represent the nominate subspecies and not *S. s. nortoni* of the Andean East Slope of Ecuador and northeastern Peru: evidently the subspecies replace one other on this slope.

***Premnornis guttuligera*, Rusty-winged Barbtail:** Seen and captured frequently at Nabú (H23; 9, 1 collected); also two captured, one collected at El Mirador I26; AMU, MAR). Known from the head of the Magdalena Valley, but not previously recorded south of Dpto. Cundinamarca on the Cordillera Oriental or on the Andean East Slope.

***Premnoplex brunnescens*, Spotted Barbtail:** Solitary birds were frequently seen and captured at most of our study sites between 1000 and 1800 m; records from El Mirador (I26, 1 collected) and Río Rumiyaco (J28, tape recorded and collected 1000-1400 m) extend the species' previously known range on the Andean East Slope southwards from ca. 2°N (cf. Hilty & Brown 1986) to the Ecuador border.

***Thripadectes flammulatus*, Flammulated Treehunter:** One was caught at Tatauí (H24) and collected. This record represents a 300 km southwards range extension along the Cordillera Oriental, where previously known only south to Dpto. Cundinamarca (where seen regularly and captured at Finca Cárpatos (C9).

***Thripadectes holostictus*, Striped Treehunter:** Three individuals caught at 700 m at Río Nabueno (H20) represent a 400 km range extension southwards along the Andean East Slope from Dpto. Cundinamarca, as well as a significant downwards altitude extension from ca. 1500 on this slope (although the species has been recorded as low as 900 m on the Pacific slope).

***Thripadectes melanorhynchus*, Black-billed Treehunter:** Individuals were observed and caught in the understory with mixed-species foraging flocks at various sites: Cerro Comijoque (A1), Río Gazaunta (1 collected, recordings from 1400m), Serranía de Aguas Claras (2 seen, 1 collected, 1050 m); La Esperanza (1 collected at 1400 m), Fragua (2 captured, 1 collected), Alto Río Hornoyaco (1), Villa Iguana (seen twice, 5 captured), Nabú

(1), El Mirador (seen and tape-recorded at 1600 m on 13 Oct 1997 by Todd Mark *et al*.; 1 collected at 1800m by MAR), and Río Rumiyaco (5 captured, 4 collected at 1000-1400 m). In addition there are two specimens in the ICN collection taken by P. Bernal at 1640 m at Finca El Descanso (*ca.* 5º21'N, 72º39'W), Mpo. Pajarito near Cerro Comijoque (A2), in Sept 1981. This species had been known in Colombia only from a specimen taken by Chapman in 1910 at Buenavista above Villavicencio, but has proved to be continuously distributed over at least the southern two-thirds of the Andean East Slope, and is by no means rare at appropriate elevations.

***Sclerurus albigularis*, GRAY-THROATED LEAFTOSSER:** One bird caught at Alto Río Hornoyaco (H21) represents the southernmost Colombian record and an extension along the Andean East Slope southwards from near Villavicencio, though the species has also been recorded from in and around the Serranía de la Macarena (Hilty & Brown 1986, Alvarez *et al*. 1993).

***Sclerurus mexicanus*, TAWNY-THROATED LEAFTOSSER:** Caught at Alto Río Hornoyaco (1) and observed at Villa Iguana, with both individuals in primary forest. Although suspected to be continuously distributed along the Andean East Slope south into Ecuador, the only previous record was from Dpto. Meta (Hilty & Brown 1986).

***Lochmias nematura*, SHARP-TAILED STREAMCREEPER:** Single individuals were caught at 1390 m at La Esperanza (F16; collected) and Villa Iguana (H22). The present records represent a significant southward range extension on the Andean East Slope, whence previously recorded only from Dptos. Meta and Cundinamarca.

***Dysithamnus leucostictus*, WHITE-STREAKED ANTVIREO:** Caught, tape-recorded and 2 collected at 1400 m on the Río Gazaunta (B8); a pair was captured and the male collected at La Esperanza (F16) and the species was tape-recorded at Cerro La Mica (1600-1800 m; MAR); three were captured and collected at Fragua (G18); a female was captured at Alto Río Hornoyaco (H21), and a female was collected at 1370 m on the Río Rumiyaco (J28). A female was also observed at Villa Iguana by TMD in an understory mixed-species foraging flock. This poorly known species, an endemic of the Ecuador-Peru East Andes EBA, was recently split from *D. plumbeus* (Ridgely and Tudor 1994). It was known in Colombia from Buenavista, Dpto. Meta and El Carmen, Dpto Putumayo (Hilty & Brown 1986); the present records fill this 500 km gap and suggest that the species is continuously distributed along the Andean East Slope from Ecuador north to at least 5°N in Colombia.

***Myrmotherula spodionota*, FOOTHILL ANTWREN:** Ten birds were caught (one collected) in both primary and secondary growth at Alto Río Hornoyaco; five were captured and collected at Fragua (1000-1400 m); one female and 3 males were caught and collected at 1000-1460 m on the Río Rumiyaco. These are the first specimen records from Colombia; Willis (1988) reported sightings at El Paraíso, Dpto Huila in Apr 1962. The species is otherwise known from the Andean East Slope of Ecuador and Peru from 600-1300 m (Hilty & Brown 1986). Interestingly, extensive data from Ecuador indicate an elevational segregation of *M. spodionota* from its close relative, the Stipple-throated Antwren *M. haematonota* (Krabbe *et al.* 1999). However, both were captured in the same mist-nets at 1100 m at Alto Río Hornoyaco although they were not observed foraging together.

***Rhegmatorhina melanosticta*, HAIRY-CRESTED ANTBIRD:** One male was caught at Río Nabueno (H20), another at 1000m on the

Río Rumiyaco (J28). These are the first records for the Andean East Slope, and extend the species' known elevation range in Colombia upwards from 400 m.

***Chamaeza turdina*, Scalloped (Schwartz's) Antthrush:** Observed and tape-recorded at 1400-1800 m, 2 collected at Cerro La Mica; tape-recorded at Río Gazaunta (B8) by MAR; caught and collected at Nabú (H23). These are the first Andean East Slope records, although the species was known from the head of the Magdalena valley in Dpto. Huila. At lower elevations in the Serranía de los Churumbelos this species was replaced by the by Short-tailed Antthrush *Chamaeza campanisona*, captured at Alto Río Hornoyaco (5) and Villa Iguana (6).

***Grallaria hypoleuca*, White-bellied Antpitta:** Heard daily and considered common in primary forest at Cerro La Mica (tape-recorded) and at all sites above 1400 m (H22-25) in the Serranía de los Churumbelos (tape-recorded and observed at El Dorón). One bird was also heard far to the north at 2100 m on Cerro Comijoque (A1), another observed and tape-recorded at El Mirador (MAR). These records are the first from the Andean East Slope, the closest previous records being from the head of the Magdalena valley. The records at Villa Iguana (1400 m) and El Dorón (2450 m) also broaden the known altitudinal limits of this species in Colombia (cf. Hilty & Brown 1986).

***Grallaricula flavirostris*, Ochre-breasted Antpitta:** Five individuals were caught at Villa Iguana, where the species was seen on several occasions perched on elevated branches 0.5 to 1 m above the ground in dense mossy forest. One also collected at Cerro La Mica (F17). These records fill a gap on the Andean East Slope between Dptos. Putumayo and Meta (Hilty & Brown 1986).

***Grallaricula nana*, Slate-crowned Antpitta:** Three were caught and collected at 2000 m on Cerro La Mica (F17), which extends the known range on the Andean East Slope ca. 250 km southwards from Dpto. Cundinamarca, where it had been recorded by FGS and P. G. Kaestner at 2400 m on the Monterredondo-El Calvario road on 20 May 1990, by FGS & L. Rosselli at Finca Cárpatos (C9) where a pair was seen repeatedly and a young bird banded at 2800 m, as well as at nearby Reserva Biológica Carpanta (4°35'N 73°43'W) (Andrade & Lozano 1997).

***Grallaricula cucullata*, Hooded Antpitta:** One was seen and another collected in ridgetop forest at 2000 m at Vereda Campo Hermoso (B5) on 4 Jul 1998; one was caught and collected at 1900 m on Cerro La Mica, and two were caught, 1 collected at Nabú (H23). These are the first records from the Andean East Slope in Colombia for this Endangered species, otherwise known from the head of the Magdalena valley and three other scattered Andean localities, and suggest that it might not be as rare as previously thought.

***Conopophaga castaneiceps*, Chestnut-crowned Gnateater:** To the single previous record for this species on the Andean East Slope in Dpto. Cundinamarca (ca. 4°N) may be added the following: one female collected at 1250 m at Pajarito (A2), several seen and one collected at 1000 m at Serranía de Aguas Claras (E15), several seen and captured, 2 collected at 1350 m at La Esperanza (F16), one collected at Cerro La Mica (F17), two caught and collected and several observed and tape-recorded at Fragua (G18) and four caught, one collected 1350-1460 m at Río Rumiyaco (J28). The record for Pajarito is the northernmost for the species, which evidently is continuously distributed along this slope, although it was unrecorded in Los Churumbelos.

***Scytalopus micropterus,* EQUATORIAL RUFOUS-VENTED TAPACULO:** Tape-recorded and caught at 1400 m on Río Gazaunta, female collected; at Villa Iguana (2 males collected) and at 1600 m on Cerro La Mica (female collected). Vocalizations verified by Niels Krabbe. At both sites, encountered in swampy areas in primary forest, and replaced on steep slopes at Villa Iguana by Northern White-crowned Tapaculo *S. atratus*. Following the taxonomic revision and data presented by Krabbe and Schulenberg (1997), this species had not previously been confirmed north of southeastern Dpto Nariño (0°25'N); the present records extend the species' distribution a further 640 km northwards.

***Acropternyx orthonyx,* OCELLATED TAPACULO:** This elusive species was quite common by voice at Finca Cárpatos (C9) and adjacent areas, with six sightings, numerous auditory records including tape recordings, between Nov 1991 and Jul 1992. The species' preference for the densest bamboo-choked understory and impenetrable bamboo thickets in clearings, landslide scars, etc. make it almost impossible to see except by imitating its loud, emphatic *WHEEUW!* whistle and waiting patiently for up to ½ hr. Also observed once at El Dorón (H25) by AMC. These are the first records for the Andean East Slope; in the Cordillera Oriental previously only known from the west slope in Dpto. Cundinamarca.

***Pipra isidorei,* BLUE-RUMPED MANAKIN:** This species was found at many of our localities from Boyacá southwards: One captured at 1250 m on Cerro Comijoque (A1); two captured, one collected at 1250 m at La Almenara (B4); several captured, 2 collected at Serranía de Aguas Claras (E15) and a lek observed in forest understory at El Vergel Alto (E14); captured (5), collected (2) and tape recorded at La Esperanza (F16); 15 captured, 4 collected at Fragua (G18); a lek observed and four collected between 1000 and 1400 m at Río Rumiyaco (I27). Especially abundant in the Serranía de los Churumbelos, with a total of 27 individuals caught at Puerto Bello (1), Río Nabúeno (6) and Alto Río Hornoyaco (20, 1 collected). Previously known from old specimens above Villavicencio, Dpto Meta (Hilty & Brown 1986), we present the northernmost locality for this species, which appears continuously distributed and locally common along the Andean East Slope in Colombia. At most of the aforementioned sites, *P. isidorei* was sympatric with the White-crowned Manakin *P. pipra*; in fact, captures of the two species at the three Los Churumbelos sites were positively correlated. Thus, it does not appear that *P. isidorei* "partially replaces" *P. pipra* (Hilty & Brown 1986); the two species differ markedly in behavior.

***Pipra erythrocephala,* GOLDEN-HEADED MANAKIN:** Captures at 1315 m at Cerro Comijoque (A1) and at 1450 m at Villa Iguana (H22) extend the species' known elevation range upwards from 500 m in Colombia (cf. Hilty & Brown 1986); elsewhere it is known to 1100 m, rarely higher (Ridgely & Tudor 1994).

***Masius chrysopterus,* GOLDEN-WINGED MANAKIN:** Previously unreported N of SE Nariño on the Andean East Slope, this species is another that appears to be widespread thereon, though its distribution presents certain peculiar features. Observed on the Monterredondo-El Calvario road. Birds caught at Mámbita (B6; 3, 1 collected), Río Gazaunta (B8; 12, 4 collected), Cerro La Mica (F17; 4 captured, 3 collected) and in the Serranía de los Churumbelos (32 in all, at all sites except Puerto Bello, with the largest numbers –14, 2 collected – at Nabú) all appear to represent the race *pax* in which the nape feathers of the males are orange-red; this race was previously known only from SE Nariño. A previously unreported male specimen in the ICN collection from Pajarito (near A1) with pale orange nape feathers, by contrast, represents nominate *chrysopterus* which ranges N and E into the Venezuelan Andes. Curiously, male birds from Boyacá and Santander on the W slope (ICN, IAVH) have red-orange napes like *pax*, while birds from further S on this slope in Cundinamarca have pale orange napes and have been assigned to the nominate race – a most unusual "checkerboard" distribution pattern! The record at Río Nabueno (700 m) also extends the known elevation range on this slope downwards from 1200 m (cf. Hilty & Brown 1986).

***Schiffornis turdinus*, Thrush-like Manakin:** Three individuals were caught in primary forest at 1000 m at Río Rumiyaco (J28). Although widely if sparsely recorded in the lowlands of eastern Colombia, this species had not previously been recorded above ca. 500 m in the foothills on the Andean East Slope.

***Pipreola arcuata*, Barred Fruiteater:** Seen and heard fairly regularly in the forest canopy between 2800 and 3100 m at Finca Cárpatos (C9) between Oct 1991 and Jun 1992; one also seen in the canopy at forest edge at ca. 2500 m on the Monterredondo-El Calvario road by FGS on 20 May 1990. These records extend the known distribution on the Andean East Slope south some 120 km from Dpto. Boyacá.

***Pipreola chlorolepidota*, Fiery-throated Fruiteater:** Individuals and pairs in mixed-species foraging flocks or alone fed on small fruits of shrubs and herbaceous plants (1-5 m) on forest borders with Orange-bellied Euphonia *Euphonia xanthogaster* and other species at Alto Río Hornoyaco and Villa Iguana (H21-22). One male was observed very low in secondary growth near a clearing and calling a high-pitched "*pitch*" at the former site on 8 August 1998). Also observed on 17 August by D. Davison, *ca.* 5 m up in bushes on the edge of a landslide gap at the base of Alto Cagadero (1500 m). One individual was also observed at ca. 900 m at Río Rumiyaco (J28) by R. Schiele. Previously recorded in Colombia from sight records near Florencia, Caquetá (Hilty & Brown 1986), and at El Paraíso, Dpto Huila in 1962 (Willis 1988). Although specimen or photographic confirmation remains elusive, the large number of sight records of this highly distinctive, Near-threatened (Collar *et al.* 1992) foothill species goes far towards establishing its presence in Colombia.

***Ampelioides tschudii*, Scaled Fruiteater:** At Villa Iguana (H22) one individual was captured and photographed and a pair was seen along the transect and a female was closely observed when, disturbed from the ground, it flew to a low perch (*ca.* 2 m) in dense understory. At 1400 m at Río Rumiyaco MAR observed an individual feeding on a *Ficus* sp. and tape-recorded vocalizations. These represent the first records from the entire Andean East Slope south of Norte de Santander, although this Near-threatened species (Collar *et al.* 1992) has been recorded in the Serranía de la Macarena (Hilty & Brown 1986).

***Lipaugus subalaris*, Gray-tailed Piha:** Four birds were caught and several observed in the upper understorey / midstorey at Río Nabueno (H20), with birds calling "*peeep*" reminiscent of a baby chicken peeping (as Willis 1988). Also one collected at Río Rumiyaco (J28) and observed at Estación de Bombeo Guamués (I27), where two individuals were lekking in the central branches of an emergent tree in tall secondary forest on 28 August 1993 (PS). Birds flitted between branches in the open lower canopy, and fanned their tails very wide to reveal the pale outer tail feathers, then irregularly moved the tail from side to side. This species is a recent addition to the Colombian list following the discovery of two 1960s specimens from the Mocoa area, Dpto. Putumayo (Dick 1991) and observations from El Paraíso, Dpto Huila (Willis 1988).

***Tityra semifasciata*, Masked Tityra:** Observed on several occasions in semi-open areas of La Esperanza (F16); previously known on the Andean East Slope only from the vicinity of Villavicencio, Dpto Meta. As it is widespread along the east base of the Andes in Ecuador (N to Sucumbíos), it seems likely to be so in Colombia as well (R. S. Ridgely, pers. comm.).

***Pachyramphus albogriseus*, Black-and-white Becard:** One male was observed at length at Río Nabueno (H20) on 28 Jul 1998 by PS in a large mixed-species foraging flock (35 species) feeding on small fruits of a canopy tree. Also collected at 1600 m on the Río Gazaunta (B8). These records help to fill a huge gap (from N Boyacá to SE Nariño) on the Andean East Slope.

***Pachyramphus cinnamomeus*, Cinnamon Becard:** Observed, captured and collected at Río Gazaunta (B8); frequently seen, one captured in second growth at 1000 m in the Serranía de Aguas Claras (E15); also observed at Santa María (B3) and Vereda La Soya (B7). Previously recorded on the Andean East Slope only in Norte de Santander and at Villavicencio, Meta; the present records show that this species occurs regularly S to at least 4º N on this slope.

***Mecocerculus minor*, Sulphur-bellied Tyrannulet:** A total of 12 were captured in the Serranía de los Churumbelos at elevations of 1100 m (Alto Río Hornoyaco) to 2450 m (El Dorón). Previously recorded on the Andean East Slope only in SE Nariño and in Norte de Santander and northern Boyacá, and not below 1600 m (Hilty & Brown 1986).

***Mionectes olivaceus*, Olive-striped Flycatcher:** In the Serranía de los Churumbelos this was the most frequently captured species with 229 (1 collected) at the four lower-elevation sites; 16 captured at La Esperanza, 23 (2 collected at Fragua and 7 (1 collected) at Río Rumiyaco. Although widespread and common in the subtropical zone over much of the Colombian Andes, this species' presence on the Andean East Slope south of Villavicencio had been based upon a single sighting in Caquetá (Hilty & Brown 1986); evidently it is common the length of this slope.

***Mionectes striaticollis*, Streak-necked Flycatcher:** Like the preceding one, this species, while recorded widely in the Colombian Andes, was little known on the Andean East Slope with records only from the latitude of Bogotá (ca. 4° N) and SE Nariño. A total of 182 was captured in the four upper-elevation sites of the Serranía de los Churumbelos and additional captures at Cerro Comijoque, Río Gazaunta, Vereda Campo Hermoso, Finca Cárpatos, at 2000 m on the Monterredondo-El Calvario road, La Esperanza, Cerro La Mica (7, including 4 collected), and El Mirador indicate that this species as well is continuously distributed along this slope.

***Pseudotriccus pelzelni*, Bronze-olive Pygmy-Tyrant:** Four were captured and collected at 1400-1600 m on the Río Gazaunta (B8); two were collected at 2000 m on Cerro La Mica (F17), and four were captured at Alto Río Hornoyaco and Villa Iguana (H21-22), all in dense understory vegetation, where the species was much more regularly heard calling than captured in mist nets. Previously known on the Andean East Slope only from Buenavista, above Villavicencio (Hilty & Brown 1986).

***Pseudotriccus ruficeps*, Rufous-headed Pygmy-Tyrant:** A pair with enlarged gonads was collected at 2100 m on Cerro La Mica (F17); also collected at 2000 m on the Monterredondo-El Calvario road (D10), regularly seen with one captured at 2800 m at

Finca Cárpatos (C9); a total of 11 captured at the three highest sites in the Serranía de los Churumbelos (H23-25); five captured, 3 collected at Río Gazaunta (B8), and one observed at 2100 m on Cerro Comijoque (A1). Previously unrecorded north of Dpto Caquetá on the Andean East Slope, this is another species that evidently occurs over its whole length.

***Hemitriccus zosterops*, White-eyed Tody-Tyrant:** One was caught at Puerto Bello (H19); at Río Nabúeno (H20) six were captured and it was commonly heard singing from the subcanopy. PS estimated that at least six males were holding territories and singing at dawn along a ridgetop transect of 500 m. Previously known on the Andean East Slope only from a record at 500 m in Caquetá.

***Todirostrum calopterum*, Golden-winged Tody-Flycatcher:** One individual was caught in dense secondary forest at Alto Río Hornoyaco (H21). Previously recorded from lowlands and foothills near the Ecuador border in Dpto Putumayo and Dpto Nariño (Hilty & Brown 1986). This record represents the third locality for Colombia and the northernmost record of this species, endemic to the Upper Amazon-Napo lowlands EBA (Stattersfield et al. 1997).

***Tolmomyias sulphurescens*, Yellow-olive Flycatcher:** Records of this widespread species east of the Andes in Colombia are scattered northwards from Dpto. Caquetá, and apparently the subtropical-inhabiting *confusus* subspecies had not been recorded from the Andean East Slope of Colombia (cf. Hilty & Brown 1986). We recorded the species from several sites at elevations between 600 and ca. 1000 m: Pajarito (A2, collected), Santa María (B3, collected), Vereda La Soya (B7, collected), Mámbita (B6), CREAD-Restrepo (collected) and from two sites in Los Churumbelos: Puerto Bello and Alto Río Hornoyaco (H19,21). The latter are also the southernmost records for eastern Colombia and links to the *confusus* population in eastern Ecuador (Sucumbíos and Napo) (R. S. Ridgely, pers comm.).

***Platyrinchus mystaceus*, White-throated Spadebill:** This species was common in dense wet forest undergrowth at Pajarito (A2; 1), Santa María (B3; 3 captured, 1 collected), Serranía de Aguas Claras (E15; 5 captured, 1 collected), La Esperanza (F16; 3 captured, 2 collected), Fragua (G18; 2 collected), Villa Iguana (H22; 13 captured, 2 collected), El Mirador (I26; 1 collected) and Río Rumiyaco (J28; 1 collected at 1000 m). Previously known on the Andean East S1ope only from Dpto. Arauca and from the Serranía de la Macarena (cf. Hilty & Brown 1986), this is another species that is evidently common the length of this slope.

***Platyrinchus flavigularis*, Yellow-throated Spadebill:** Four were captured, two collected at 1370 m on the Río Rumiyaco (J28), including males in breeding condition. Previously unknown on the Andean East Slope of Colombia, although recorded from this slope in Ecuador, the head of the Magdalena valley and Serranía de la Macarena.

***Neopipo cinnamomea*, Cinnamon Neopipo:** An adult male caught at Puerto Bello, and a male and two females at Río Nabueno (H20-21), represent the first records for this species on the Andean East Slope in Colombia; the few other records from eastern Colombia are scattered over the Amazonian lowlands.

***Myiobius villosus*, Tawny-breasted Flycatcher:** Four birds were caught at Cerro La Mica (F17; 1 collected) and one at Alto Río Hornoyaco (H21, collected), the first records from the Andean East Slope south of its extreme northern end in Arauca, although the species is known from this slope in Ecuador.

***Myiophobus phoenicomitra*, Orange-crested Flycatcher:** Individuals caught at Alto Río Hornoyaco and Villa Iguana (H21-22) are the first records for the Andean East Slope in Colombia; these presumably represent the nominate subspecies, for which they constitute a 150 km northwards range extension from E Ecuador (Ridgely & Tudor 1994).

***Myiophobus pulcher*, Handsome Flycatcher:** One was seen in tall brush at forest edge at 2100 m on the Monterredondo-El Calvario road on 20 May 1990 by P. Kaestner and FGS; the species was also observed frequently at Nabú (H23; 1 collected), El Dorón (H25) and El Mirador (I26). *M. p. bellus* (Beautiful Flycatcher) of the Andean East slope may be a separate species from the Pacific slope *M. p. pulcher*, averaging morphometrically larger (e.g. >13% greater wing chord) and with distinctive plumage differences (TMD, unpublished data). Previously known on the Andean East Slope from sightings in W Caquetá and Putumayo (Hilty & Brown 1986).

***Knipolegus poecilurus*, Rufous-tailed Tyrant:** Caught and photographed at 1900 m above Salinas de Upín (D12) on 31 Oct 1995; single birds were observed daily at Villa Iguana (H22) perched on exposed canopy branches at 1600 m close to cliffs near Alto Cagadero. These represent the first records for the Andean East Slope in Colombia, although the species has been recorded from the head of the Magdalena valley.

***Hirundinea ferruginea*, Cliff Flycatcher:** Several individuals observed hawking above the canopy for insects from the cliffs of the mesetas at Alto Río Hornoyaco and Villa Iguana presumably represent the race *sclateri*, known from the Andean East Slope of Colombia (south to Dpto. Meta) and the Serranía de la Macarena, helping to close the gap to other populations of this race on this slope in Ecuador. Interestingly, the nominate race of Orinoquia is found in the Sierra de Chiribiquete at the same latitude as the Serranía de los Churumbelos (Stiles *et al*. 1995).

***Attila spadiceus*, Bright-rumped Attila:** Common and frequently heard at Bosque de Bavaria (D13), where one was mist-netted at 1050 m on 17 Nov 1995; another was collected at 1100 m above Salinas de Upín on 4 Apr 1995; several were seen, one mist-netted in forest patches between 800 and 1000 m at Vereda El Vergel Alto (E14), one was captured at 700 m at Río Nabueno; several observed in secondary forest at 900-1000 m at Río Rumiyaco. Although widespread in the lowlands of eastern Colombia, this species had not been recorded on the Andean East Slope, along which it appears to ascend regularly to 1000 m or more.

***Neochelidon tibialis*, White-thighed Swallow:** Two or three birds were seen daily hawking over forest and around a small clearing at 1100 m at Alto Río Hornoyaco. Previously known from scattered lowland records east of the Andes, but not on the Andean East Slope (Hilty & Brown 1986).

***Odontorchilus branickii*, Gray-mantled wren:** Several individuals were observed in mixed-species foraging flocks at forest edge and in secondary forest at La Esperanza (F16). Otherwise known on the Andean East Slope only from two records in western Dpto. Caquetá, 150 km to the south.

***Thryothorus rutilus*, Rufous-breasted Wren:** Heard and observed on several occasions, one captured and collected in forest edges and second growth at La Esperanza (F16). Previously reported on the Andean East Slope only from Dpto. Meta, 150 km to the north.

***Myadestes ralloides,* ANDEAN SOLITAIRE:** Birds were seen, heard or caught at several sites; of greatest interest are a juvenile and an adult captured at 350 m at Puerto Bello (H19), representing an altitudinal extension of 850 m (down from ca. 1200 m) on the Andean East Slope (cf. Hilty & Brown 1986, Ridgely & Tudor 1989). This suggests that this species might make pronounced post-breeding altitudinal movements, such as have been reported for related species like *M. melanops* in Costa Rica (Stiles & Skutch 1989) and *Entomodestes coracinus* in Colombia (Hilty 1977).

***Platycichla leucops,* PALE-EYED THRUSH:** Two were caught at 700 m at Río Nabúeno some 200 m below the previously known lower elevation limit (Ridgely & Tudor 1989); observations by MAR and one collected at 1460 m at Río Rumiyaco (J28) represents a 120 km range extension southwards.

***Turdus fulviventris,* CHESTNUT-BELLIED THRUSH:** Observed and captured at Villa Iguana (2), Nabú (5), Tatauí (2) and La Esperanza (F16) where a male was collected; this record extends the known range on the Andean East Slope northwards some 150 km from Dptos. Nariño and Putumayo.

***Polioptila plumbea,* TROPICAL GNATCATCHER:** Observed frequently, including pairs, in secondary and primary forest up to 1000 m in the Serranía de los Churumbelos, with 5 caught at Puerto Bello, 2 at Río Nabueno and 3 at Alto Río Hornoyaco. Although there are scattered records of this species in the lowlands of eastern Colombia, these are the first reports from the Andean East Slope.

***Vireolanius eximius,* YELLOW-BROWED SHRIKE-VIREO:** Observed or heard on virtually all visits to Bosque de Bavaria (D13), where L. Rosselli et al. captured one on 8 Dec 1996 at 900 m.; heard singing regularly in forest at 800-1100 m above Salinas de Upín (D12) in Mar 1994; commonly observed and tape-recorded at 550-950 m on the Serranía de Aguas Claras (E15), 22-23 Nov 1995. These records extend the known distribution on the Andean East Slope some 400 km southwards from N Dpto. Boyacá.

***Psarocolius angustifrons,* RUSSET-BACKED OROPENDOLA:** Detailed observations of this species, mostly by FGS, suggest that the yellow-browed, yellow-billed highland *neglectus* and the plain-headed, black-billed lowland *angustifrons,* may behave as "good" species in the region from S Boyacá to S Meta on the Andean East Slope. All breeding colonies of *neglectus* were above 900-1000 m, e.g. Cerro Comijoque (1200-1800m), Santa María (1100-1300m), the Monterredondo-El Calvario road (700-1800 m), above Acacías, just S of Villavicencio (1000-1200 m), El Vergel Alto and Serranía de Aguas Claras (900-1200 m), in which no black-billed birds were seen in a total of perhaps 75-100 birds. Conversely, all colonies of *angustifrons* found were at or below 750 m, e.g. Cumaral N of Villavicencio (350 m), near Acacías (450-600 m), near the Bosque de Bavaria (550 m) and above Cubarral below the Serranía de Aguas Claras and El Vergel Alto (600-750 m), etc., with no *neglectus*-type birds recorded (again, out of perhaps 100 birds in all). Away from colonies and outside the breeding season these birds move in flocks of *ca.* 10-50+. At Acacías flocks of *angustifrons* were regularly seen to as high as 650m and, higher on the same mountain, flocks of *neglectus* as low as 900m with no mixing. All flocks seen above *ca.* 850-900m at Cerro Comijoque, Santa María and Vereda Campo Hermoso were *neglectus*, one flock each Vereda La Soya (500-650 m) and below Mámbita (ca. 750 m) were pure *angustifrons*. However, the most interesting data are from Vereda El Vergel Alto (C14) in Jun 1996, where three flocks (*ca.* 65-75 birds) of pure *angustifrons* were observed between 600-1090 m, while four flocks (total 50+) of pure *neglectus* were observed between 1000-1300m (plus a breeding colony of perhaps 20 pairs at 1300 m). One flock of ca. 30 *neglectus* at 950 m included two individuals with faint brow markings and pale bills with dusky tips, possibly juveniles or hybrids with *angustifrons* (we are unsure if the pale bill is present from hatching). Even if hybrids, the proportion of such individuals is strikingly low (<1%), especially considering that there is some altitudinal overlap between the two forms at least in foraging flocks, although perhaps not in breeding colonies. More detailed data are needed from other areas where members of the yellow- and black-billed forms may come into contact, especially to the south where the problematical and possibly intermediate form *alfredi* occurs.

***Hypopyrrhus pyrohypogaster,* RED-BELLIED GRACKLE:** Several flocks were observed at Cerro La Mica (F17) foraging in fruiting bamboo (*Chusquea* spp.). A pair was observed at close quarters at 1740 m, Km 121 at El Mirador (I26) on 4 Mar 1997 by PS and Ralf Strewe, and a male was observed singing at the same locality on 21 Mar 1998 by PS, associated with a large flock of Scarlet-rumped Cacique *Cacicus uropygialis* and Red-ruffed Fruitcrow *Pyroderus scutatus*. These records extend this Colombian endemic, globally Threatened species' known range on the Andean East Slope both north and south and include the southernmost reports for the species as a whole.

***Cacicus haemorrhous,* RED-RUMPED CACIQUE:** This species was fairly common in forest and along the roadside at Puerto Bello**,** foraging alone or with Yellow-rumped Cacique *Cacicus cela*. This report extends the known distribution on the Andean East Slope southwards from W Dpto. Caquetá.

***Cacicus uropygialis,* SUBTROPICAL CACIQUE:** A flock of at least 10 birds was observed at length at 1900-2000 m at Vereda Campo Hermoso (B5), associating with a larger flock of *Psarocolius angustifrons* in very wet cloud forest; three were seen at forest edge on the Río Gazaunta (MAR); and a flock was observed and tape-recorded in forest borders at El Dorón (H25), associating with *Psarocolius angustifrons,* Mountain Cacique *Cacicus leucoramphus, Cyanolyca viridicyana* and Green Jay *Cyanocorax yncas*. Probably this species was also observed in a mixed-species foraging flock at Cerro Comijoque (A1). Previously known on the Andean East Slope only from its northern (Dpto. Norte de Santander) and southern (Dpto. Putumayo) extremes, these records help to fill this huge gap; that from El Dorón also extends the known altitudinal range upwards from 2300 to 2450 m (cf. Jaramillo and Burke 1999). We also note that the vocalizations of these birds are very different from those of *pacificus* and *microrhynchus*, two smaller lowland forms usually considered conspecific with *uropygialis*. For example, one common flock call was more reminiscent of that of a frantic Great Thrush *Turdus fuscater* than of an Icterid (FGS). The differences in size, elevation range and vocalizations (call notes) convince us that *uropygialis* (Subtropical Cacique) is indeed specifically distinct from *pacificus* (Pacific Cacique) and *microrhynchus* (Scarlet-rumped Cacique), as suggested by Ridgely & Tudor (1989), and adopted by Jaramillo and Burke (1999).

***Icterus chrysocephalus,* MORICHE ORIOLE:** A pair was observed in a small banana plantation at 1050 m above Acacías, just south of Villavicencio, on 29 Sep 1995 by FGS; one bird was seen in bushes in the pasture clearing at 1100 m at Alto Río Hornoyaco on 7 Aug 1998 by D. Davison. Although widespread in the eastern lowlands to 500m (Hilty & Brown 1986), this species had not been reported on the Andean East Slope; interestingly, it was also recently found to 900 m in Sucumbios, NE Ecuador (R. S. Ridgely, pers comm.).

***Gymnomystax mexicanus,* ORIOLE BLACKBIRD:** Small flocks were observed in wetlands around the Río Fragua at Puerto Bello (H19). This species is locally common in the Llanos of NE Colombia and along the Amazon at Leticia (Hilty & Brown 1986); the present record represents a 400 km south-westerly range extension within Colombia and perhaps is a recent range expansion in response to forest clearance.

***Parula pitiayumi,* TROPICAL PARULA:** Observed commonly in secondary forest and forest edges at El Vergel Alto, Serranía de Aguas Claras (E14-15), La Esperanza (F16) and Río Rumiyaco, extending the species' known distribution on the Andean East Slope southwards from Dpto. Cundinamarca.

***Basileuterus coronatus,* RUSSET-CROWNED WARBLER:** Like the preceding species, formerly recorded south on the Andean East Slope only to Cundinamarca (Andrade *et al*. 1993); found to be fairly common at La Esperanza (6 caught, 3 collected), Nabú (14 caught) and El Dorón (4).

***Diglossa glauca,* DEEP-BLUE FLOWER-PIERCER:** A male caught and collected at La Esperanza (F16) extends the known range on the Andean East Slope northward from Dpto. Caquetá.

***Cyanerpes caeruleus,* PURPLE HONEYCREEPER:** The species was common in primary forest and forest borders in the Serranía de los Churumbelos as high as Villa Iguana (ca. 1450 m); on an exposed ridge above Tatauí at 2300 m, a male was observed foraging on terrestrial bromeliad flowers in páramo-like habitat, an extension of 700 m upslope from its previously reported upper limit (cf. Hilty & Brown 1986).

***Conirostrum speciosum,* CHESTNUT-VENTED CONEBILL:** FGS observed a male foraging for insects in the foliage of *Albizzia* trees, associating with a group of migrant *Dendroica striata*, at the CREAD station at Restrepo (D11) on 22 Oct 1994, and saw another seen briefly in *Albizzia* trees in secondary woodland below the Bosque de Bavaria (D13) on 2 Apr 1995. A male was observed repeatedly and collected by MAR in similar habitat below the Río Gazaunta (B8) near Medina in Mar 1997. Previously known in Colombia from a "Bogotá" skin and sight records from the Río Amazonas above Leticia; the present records confirm the occurrence of this species to the base of the Andes, representing an extension of ca.750 km from the nearest population in the Venezuelan Llanos.

***Chlorophonia cyanea,* BLUE-NAPED CHLOROPHONIA:** A pair with nesting material was observed in trees bordering a pasture at 1800 m on the Monterredondo-El Calvario road by FGS and P. G. Kaestner on 19-20 May 1990; FGS saw several visiting *Miconia* trees for fruit in an overgrown pasture adjoining forest at 1010 m above the Bosque de Bavaria on 4 Oct 1995; two were observed in secondary growth at Salto Candelas at 1800 m, near Cerro Comijoque on 8 Jun 1997 by A. Repizzo; CIB saw a pair building a nest with moss high in a tree at Cerro La Mica (F17) in November 1997; and MAR observed the species at 1000 and 1450 m at Río Rumiyaco in October 1998. These, the first records for Andean East Slope, suggest that this is yet another species distributed along its entire length.

***Euphonia musica*, BLUE-HOODED EUPHONIA:** A female caught and collected at Cerro La Mica (F17) extends the known distribution of this species on the Andean East Slope southwards from Dpto. Cundinamarca.

***Euphonia mesochrysa,* BRONZE-GREEN EUPHONIA:** A male of this poorly known species was captured and collected at 1250 m at La Almenara (B4) on 5 Sep 2000 by S. Córdoba, the third record for the Andean East Slope and extending its known distribution N from Villavicencio.

***Tangara guttata*, Speckled Tanager:** One individual caught at Río Nabúeno (H20) represents a southwards range extension from Florencia, Dpto. Caquetá (Hilty & Brown 1986) for this subtropical species, and its range approaches more closely that of the similar but presumably allopatric Spotted Tanager *T. punctata,* known from just south of the Colombia-Ecuador border (Ridgely & Tudor 1989).

***Tangara ruficervix*, Golden-naped Tanager:** Observed in mixed-species foraging flocks at 1700-1900 m at Vereda Campo Hermoso (B5), at 1850-2000 m on the Monterredondo-El Calvario road (D10) in May 1990 and Jan 1991, and 1250-1600 m at La Esperanza and Cerro La Mica (where observed to feed on fruits of *Coussapoa* by MAR). Previously unrecorded north of Florencia, Dpto. Caquetá on the Andean East Slope.

***Tangara xanthocephala*, Saffron-crowned Tanager:** Observed regularly in mixed-species foraging flocks at Pajarito (A2), 1850-2200 m on the Monterredondo-El Calvario road (D10), 1700 m at Cerro La Mica (F17), and in the Serranía de los Churumbelos at Villa Iguana, Nabú and El Dorón (H22,23,25). Previously unrecorded on the Andean East Slope, although known from Serranía de la Macarena.

***Tangara vitríolina*, Scrub Tanager:** Several were observed around a small isolated clearing at Alto Río Hornoyaco (H21). Although widely distributed in the Colombian Andes, this species had not been recorded on the Andean East Slope, where it is replaced (up locally to ca. 1000 m, as above Villavicencio and Acacías) by the closely related *T. cayana*, Burnished-buff Tanager. Evidently this species had crossed from the head of the Magdalena valley with forest clearance, and may soon enter into contact with *T. cayana*.

***Tangara parzudakii*, Flame-faced Tanager:** Seen several times in mixed-species foraging flocks at 1850-2200 m on the Monterredondo-El Calvario road (D10) and at 1450 m on the Río Gazaunta (MAR); two birds observed in the subcanopy at 1650 m at Cerro La Mica (CIB). Previously unrecorded north of Dpto. Caquetá on the Andean East Slope.

***Tangara heinei*, Black-capped Tanager:** Observed in mixed-species foraging flocks at 1700-1900 m at Vereda Campo Hermoso (B5), at 1850-2200 m on the Monterredondo-El Calvario road (D10), and in secondary forest at La Esperanza (F16). Previously unrecorded on the eastern slope of the Cordillera Oriental, or on the Andean East Slope north of Dpto. Cauca.

***Iridosornis analis*, Yellow-throated Tanager:** To the single probable sighting of this species in Colombia in W Dpto. Putumayo (Hilty & Brown 1986), we can add the following: one seen at Villa Iguana (H22) on 16 August 1998 in a flock including Golden Tanager *Tangara arthus* and Orange-eared Tanager *Chlorochrysa calliparaea* (AMC), one observed alone in canopy trees beside a large landslide the following day by D. Davison, and one observed in a mixed-species foraging flock on a forest border on 13 Oct 1997 by PS *et al*. at Km 123 near El Mirador (I26). The present records help to establish the species' presence in Colombia, but specimen or photographic confirmation is still lacking.

***Piranga leucoptera*, White-winged Tanager:** Observed frequently, female collected in canopy-subcanopy of forest at 800-1050 m at Serranía de Aguas Claras (E15), and seen on several occasions at Cerro La Mica (CIB). A pair was observed in a secondary forest border with a mixed-species foraging flock containing Vermilion Tanager *Calochaetes coccineus* and Barred Becard *Pachyramphus versicolor* at Alto Río Hornoyaco (H21); two males and three females were observed feeding on *Ficus* fruits at 1370-1450 m at Río Rumiyaco (J28). No previous records on the Andean East Slope between Dpto. Norte de Santander and Tungurahua, Ecuador, a 1300 km gap.

***Creurgops verticalis,* RUFOUS-CRESTED TANAGER:** Several observed with a mixed-species foraging flock at 2000 m on Cerro Comijoque (A1) by CIB; two captured and collected at 1700m, observed at 1850 m (MAR) in the Río Gazaunta watershed, also seen at Cerro La Mica (F17) and Villa Iguana (H22), with one captured at Nabú (H23). Previously known on the Andean East Slope only in S Dpto. Putumayo and above 1500 m. These records represent a slight altitudinal decrease to 1400 m in Colombia and 600 km range extension northward.

***Hemithraupis guira,* GUIRA TANAGER:** Several pairs were observed foraging in the canopy of ridgetop forest at 1250 m at Pajarito (A2); observed and two collected at 850 m at Río Gazaunta (MAR). Previously known on the Andean East Slope only 180 km to the north in Dpto. Norte de Santander, although recorded on this slope in Venezuela (Phelps & Meyer de Schauensee 1981).

***Hemispingus frontalis,* OLEAGINOUS HEMISPINGUS:** Uncommon in the understory of primary forest at Cerro La Mica (F17; one collected), aso small parties were observed frequently at Nabú (12 captured, one collected). Not previously recorded on the Andean East Slope south of Dpto. Cundinamarca (ca. 4°N).

***Atlapetes fuscoolivaceus,* DUSKY-HEADED BRUSH-FINCH:** Observed twice briefly at El Dorón (H25) in secondary growth in mixed-species flocks that also included White-sided Flower-piercer *Diglossa albilatera* and Common Bush-Tanager *Chlorospingus ophthalmicus*. This Near-threatened species, endemic to the head of the Magdalena Valley in Colombia, had not previously been found on the Andean East Slope.

***Cyanocompsa cyanoides,* BLUE-BLACK GROSBEAK:** Eleven were caught at Puerto Bello and Río Nabueno (H19-20). Known in eastern Colombia from records scattered over the Amazonian lowlands and presumed to occur throughout SE Colombia by Hilty & Brown (1986), but records lacking for the Andean East Slope S of Villavicencio; this record represents a 350 km southwards range extension on this slope.

***Lysurus castaneiceps,* OLIVE FINCH:** Five individuals, including adults and immatures, were captured at Alto Río Hornoyaco (H21) near streams, and several individuals were observed in mossy forest at both Cerro La Mica (F17) and Villa Iguana (H22). Recorded on the Andean East Slope only in SE Nariño, and also at El Paraíso at the head of the Magdalena valley (Willis 1988).

***Sporophila schistacea,* SLATE-COLORED SEEDEATER:** Several flocks were observed feeding on seeding bamboo (*Chusquea* spp.) in primary forest at Cerro La Mica and two, including a male with enlarged testes, were collected; also observed at forest edge at 850 m at Río Gazaunta. No previous record for the Andean East Slope, although reported once from the Serranía de la Macarena.

***Haplospiza rustica,* SLATY FINCH:** Two were caught, one collected at Villa Iguana (H22) and four were captured at Nabú (H23); very common at Cerro La Mica between 1600 and 2000 m with 17 captured, 4 collected, in association with the same bamboo seeding event as the preceding species. At 2800-3000 m at Finca Cárpatos this species moved into the study area during such a seeding episode in late 1991-early 1992, reproduced en masse and then disappeared. The first singing males were seen in Nov 1991 and in Dec-Jan their songs were heard everywhere in an area of several ha. Females with nesting material were observed in Dec and Jan, the first juveniles appeared in Dec, with many present in Jan-Feb (when *H. rustica* became the most frequently-captured passerine). The seed crop was virtually exhausted and the species became rare by Mar-Apr, with none recorded thereafter. This species was previously unknown from the Andean East Slope.

Tiaris olivacea, **YELLOW-FACED GRASSQUIT:** Common in open areas and pastures at both La Esperanza (F16) and Mámbita (B6). Previously known on the Andean East Slope only from western Caquetá near Florencia, this species appears to be another that is moving into the area with forest clearance.

DISCUSSION

In all of our studies on the Andean East Slope, we have recorded approximately 600 species (unpublished data). An indication of just how poorly known is the avifauna of this slope is the fact that this paper contains significant new data on distribution or status for 138 species, nearly a quarter of this total. Especially indicative is the number of new records of *Tangara* and other tanagers, which are colorful, favorites of collectors and birders alike. Also ubiquitous Andean species like *Premnoplex brunnescens* were confirmed across the region. In all, for 35 species no previous records existed for the Andean East Slope of Colombia, although five had been recorded from the adjacent Serranía de la Macarena. Ten lowland species had not been known to enter the Andes, and eleven had been recorded in the adjacent upper Magdalena valley but not across the divide on the east slope. For 47 species we present significant southwards range extensions on the Andean East Slope in Colombia; in eight cases the records help to close gaps to populations of the same species on this slope in Ecuador. For 20 species, significant northward range extensions are presented; extensions in both directions were found for ten species. For an additional twelve species, our records help to close major gaps in distribution on the Andean East Slope in Colombia. We report significant expansion of the altitudinal range upwards for eleven species, downwards for eight. Ten species, known from very scanty or insufficient data, were found to be much commoner and more continuously distributed than heretofore supposed.

Two taxa sometimes considered specifically distinct from previously known Colombian taxa, *Ocreatus (underwoodii) addae* and *Piculus (l.) leucolaemus*, are reported for the first time, based upon photographs and sight records, respectively. Also documented photographically is the first Colombian record of *Myiophobus p phoenicomitra*, and first specimen documentation for Colombia was obtained for two additional species, *Campylopterus villaviscensio* and *Myrmotherula spodionota.* Several additional sight records were obtained for two species previously known in Colombia from single sightings (*Pipreola chlorolepidota, Iridisornis analis*), although permanent documentation by specimens or photographs still eludes us. We obtained the first definite locality information for *Pulsatrix melanota*, previously known in Colombia from an old specimen without this datum.

Finally, we obtained important information on the distribution or status of several species considered to be to greater or lesser degree threatened with extinction. The Alto Cagadero area of the Serranía de los Churumbelos may well be an important breeding and foraging site for the Military Macaw *Ara militaris*; this species and the Spotted-winged Parrotlet *Touit stictoptera* may have important populations in the Los Picachos area. Possibly important new populations of several Threatened or Near-threatened species (cf. Collar *et al*. 1992, Stattersfield *et al*. 1994) were discovered, including *Heliodoxa gularis, Phlogophilus hemileucurus, Grallaricula cucullata, Ampelioides tschudii, Pipreola chlorolepidota, Galbula pastazae, Hypopyrrhus pyrohypogaster* and perhaps *Atlapetes fuscoolivaceus*. Several of these are restricted-range endemics of the east Ecuador-Peru EBA (Stattersfield *et al*. 1994). Because colonization pressure is escalating especially across the southern portion of the Andean East Slope, it is important to develop clear priorities for conservation and implement them as soon as possible. The Serranía de los Churumbelos emerges as an important area to be considered in future conservation plans due to the large number of restricted-range and threatened species found and the region. Protection for several areas nominally within the system of national parks, such as Los Picachos and adjacent areas, should be made more effective as security considerations permit. Further north, the protection of even relatively small areas of forest such as the Bosque de Bavaria can be important for some species.

That much remains to be learned about the birds of the Andean East Slope of Colombia is evidenced by a number of observations or captures made for which we have as yet no reliable documentation or identification, and hence did not report in detail here: a mysterious female *Myrmeciza* antbird and the large dull *Chaetura* swifts of the Serranía de los Churumbelos, the strange yellow-eyed furnariid from Vereda La Soya, among others. Although the data presented here significantly advance our knowledge of this avifaunally rich region, several large areas remain virtually unexplored and data for many species remain insufficient to assess their true status. One can only hope that the current situation of insecurity and conflict in this region will abate sufficiently for additional explorations and conservation actions before the fragile ecosystems of the Andean slopes are irrevocably damaged.

ACKNOWLEDGEMENTS

Fieldwork in Serranía de los Churumbelos was made possible by generous financial support from the British Ornithologists' Union, Royal Geographical Society with Andrews Bequest Fund, International Fund for Animal Welfare CT, World Pheasant Association, Royal Society for the Protection of Birds, Cambridge Expeditions Fund, Gilchrist Educational Trust, Percy Sladen Memorial Fund and many others. The expedition received institutional support from the Instituto de Ciencias Naturales (Universidad Nacional de Colombia), the Cambridge Expeditions Committee, Corporación Autónoma Regional del Cauca (CRC), Universidad del Cauca and Argosy Internacional. We especially thank Gonzalo Andrade, Luis Alfonso Ortega, Niels Krabbe, Mark Mulligan, William Ørbit, and David Wege for their assistance. A detailed list of donors and individuals will be credited in Salaman & Donegan (in prep.). The IAVH expeditions were supported by Colciencias. MAR and CIB are grateful for the assistance of fieldworkers Sergio Córdoba, Carlos Suárez and Socorro Sierra; thanks to the Kofán Indigenous community for collaboration at the Río Rumiyaco study site. CIB thanks especially Augusto Repizzo for help and company in the field. Fieldwork by the Instituto de Ciencias Naturales was supported through contracts with IDEAM, Corpoguavio and Corpochivor, and by the Facultad de Ciencias of the Universidad Nacional. FGS thanks the many colleagues and students from the ICN and the Universidad Nacional for help and companionship, and is especially grateful to Arturo Rodríguez for aid in field and museum. The study at Finca Cárpatos was carried out by FGS and Loreta Rosselli, and was supported by the Empresa de Acueducto y Alcantarillado de Bogotá and CINDEC of the Universidad Nacional. Matt Madler at the Library of Natural Sounds (Cornell Laboratory of Ornithology) and Paul Coopmans helped prepare tapes and identify bird vocalizations. We thank Chris Feare, Mort Isler, Paul Coopmans, Dan Davison, Luis Mazariegos and Liliana Dávalos for kindly reviewing this paper and providing invaluable comments, and offer special thanks to Robert S. Ridgely for extensive comments on the paper. Lastly, we dedicate this study to the late Alvaro José Negret (Curator of Museo de Historia Natural, Universidad del Cauca), whose untimely death deprived Colombia of the services of an outstanding ornithologist and conservationist.

LITERATURE CITED

ANDRADE, G. I. & I. E. LOZANO. 1997 Ocurrencia del hormiguero de corona pizarra *Grallaricula nana* en la Reserva Biológica Carpanta, Macizo de Chingaza, Cordillera Oriental Colombiana. Cotinga 7: 37-38.

COLLAR, N. J., M. J. CROSBY & A. J. STATTERSFIELD. 1994. *Birds to Watch 2: The World List of Threatened Birds*. BirdLife Conservation Series. BirdLife International, Cambridge, UK.

COLLAR, N. J., L. P. GONZAGA, N. KRABBE, A. MADROÑO-NIETO, L. G. NARANJO, T. A. PARKER III & D. C. WEGE. 1992. *Threatened birds of the Americas: The ICBP/IUCN Red Data Book*. ICBP, Cambridge, U.K.

FJELDSÅ, J. & KRABBE, N. 1990. *Birds of the high Andes*. Copenhagen: University of Copenhagen Zoological Museum.

FITZPATRICK, J. W. & D. E. WILLARD. 1982. Twenty-one bird species new or little known from the Republic of Colombia. *Bulletin British Ornithological Club* 102: 153-158.

HILTY, S. L. & W. L. BROWN. 1986. *A Guide to the Birds of Colombia*. Princeton Univ. Press, Princeton, New Jersey.

JARAMILLO, A & P. BURKE. 1999. *New World Blackbirds: the Icterids*. Princeton Univ. Press, Princeton, New Jersey.

KRABBE, N., M. L. ISLER, P. R. ISLER, B. M. WHITNEY, A. J. ÁLVAREZ & P. J. GREENFIELD. 1999. A new species in the *Myrmotherula haematonota* superspecies (Aves; Thamnophilidae) from the Western Amazonian lowlands of Ecuador and Peru. Wilson Bulletin 111: 157-165.

KRABBE, N. & T. S. SCHULENBERG. 1997. Species limits and natural history of *Scytalopus* Tapacolos (Rhinocryptidae), with descriptions of the Ecuadorian taxa, including three new species. Pp. 47-88 *in:* J. V. Remsen, Jr., ed. *Studies in Neotropical Ornithology honoring Ted Parker*. Ornithological Monographs No. 48. America Ornithologists' Union, Washington.

MEYER DE SCHAUENSEE, R. 1948-1952. *The birds of the republic of Colombia*. Caldasia 5:251-1212.

OLIVARES, A. 1963. Notas sobre aves de los Andes Orientales en Boyacá. Boletín de la Sociedad Venezonala de Ciencias Naturales 25: 91-125.

OLIVARES, A. 1969. *Las aves de Cundinamarca*. Imprenta Universidad Nacional de Colombia, Bogotá.

OLIVARES, A. 1971. Aves de la ladera oriental de los Andes Orientales, Alto Río Cusiana, Boyacá, Colombia. Caldasia 11: 203-226.

PARKER III, T. A., D. F. STOTZ, & J. W. FITZPATRICK. 1996. Ecological and distributional databases for Neotropical Birds. Pp. 132-436 in Stotz, D. F., Fitzpatrick, J. W., Parker III, T. A., & Moskovits, D. K. *Neotropical Birds: Ecology and conservation*. University of Chicago Press, Chicago.

PHELPS, W. H. JR. & R. MEYER DE SCHAUENSEE. 1981. *Guia de las aves de Venezuela.* Graficos Armitano, Caracas.

RIDGELY, R. S. & G. TUDOR. 1989. *The birds of South America: Vol. 1, the Oscine Passerines*. Oxford University Press, Oxford.

RIDGELY, R. S. & G. TUDOR. 1994. *The birds of South America: Vol. 2, the Suboscine Passerines*. Oxford University Press, Oxford.

SALAMAN, P. G. W. & L. A. MAZARIEGOS-H. 1998. Hummingbirds of Nariño, Colombia. Cotinga 10: 30-36.

SALAMAN, P. G. W., T. M. DONEGAN & A. M. CUERVO 1999. Ornithological surveys in Serranía de los Churumbelos, southern Colombia. Cotinga 12: 29-39.

STATTERSFIELD, A. J., M. J. CROSBY, A. J. LONG & D. C. WEGE. 1997. *Endemic Bird Areas of the World: Priorities for Biodiversity Conservation*. BirdLife Conservation Series. BirdLife International, Cambridge, UK.

STILES, F. G. 1992. A new species of antpitta (Formicariidae: *Grallaria*) from the Eastern Andes of Colombia. Wilson Bull. 104: 379-389.

STILES, F. G. & L. ROSSELLI. 1998. Inventarios de aves del bosque altoandino: una comparación de dos métodos. Caldasia 19:28-42.

STILES, F. G., L. ROSSELLI. & C. I. BOHÓRQUEZ. 1999. New and noteworthy bird records from the middle Magdalena valley, Colombia. Bulletin of the British Ornithologists' Club 119:118-131.

STILES, F. G. & A. F. SKUTCH. 1989. *A guide to the birds of Costa Rica.* Cornell University Press, Ithaca, NY.

STILES, F. G., J. L. TELLERIA & M. DÍAZ. 1995. Observaciones sobre la composición, ecología, y zoogeografía de la avifauna de la Sierra de Chiribiquete, Caquetá, Colombia. Caldasia 17: 481-500.

VIÑA, A. & J. CAVELIER. 1999. Deforestation rates (1939-1988) of tropical lowland forests on the Andean foothills of Colombia. Biotropica 31: 31-36.

WILLIS, E. O. 1988. Behavioral notes, breeding records, and range extensions for Colombian birds. Revista de la Academia Colombiana de Ciencias Exactas, Fisicas y Naturales 16: 137-150.

WINKLER, H., D. CHRISTIE & D. NURNEY. 1995. *A Guide to the Woodpeckers, Piculets and Wrynecks of the World.* Houghton Mifflin Company, New York.

Recibido: 19/11/2000
Aceptado: 10/08/2001